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Swank, James M.

A Collection of Statistics  
to the close of 1887 relating to  
the Iron and Steel Industries of the  
United States, Etc., Etc.

Philadelphia. 1888.

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# STATISTICAL ABSTRACT.

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## A COLLECTION OF STATISTICS

TO THE CLOSE OF 1887 RELATING TO THE

# IRON AND STEEL INDUSTRIES

OF THE

# UNITED STATES.

TO WHICH IS ADDED MUCH VALUABLE STATISTICAL INFORMATION RELATING TO THE

IRON AND STEEL INDUSTRIES OF GREAT BRITAIN,

THE PRODUCTION AND PRICES OF ANTHRACITE COAL IN THE UNITED STATES, RAILROAD MILEAGE IN THE UNITED STATES, IMMIGRATION INTO THE UNITED STATES, ETC., ETC.

By JAMES M. SWANK,

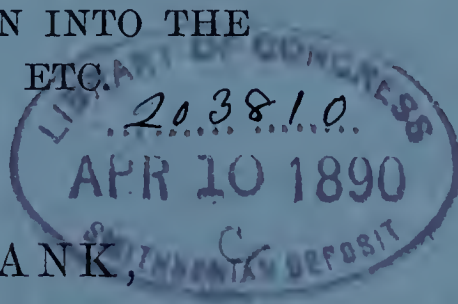
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# STATISTICAL ABSTRACT.

The statistics embodied in the following pages are to the close of 1887, which was the year of largest production of iron and steel and of most active railroad construction in the United States. This pamphlet will not be reprinted.

## DISTRIBUTION OF THE IRON AND STEEL INDUSTRIES OF THE UNITED STATES AT THE CLOSE OF 1887.

States and Territories.	Blast Furnaces.*		Iron and Steel Rolling Mills.†	Nail Ma- chines.	Steel Works.				Forges and Bloom- aries.
	Completed.	Building.			Bessemer.	Clapp-Griffiths.	Open-hearth.	Crucible.	
Maine.....	1	.....	1	.....	.....	.....	.....	.....	1
New Hampshire.....	.....	.....	1	.....	.....	.....	1	.....	.....
Vermont.....	.....	.....	.....	.....	.....	.....	.....	.....	1
Massachusetts.....	4	.....	19	413	1	1	4	1	.....
Rhode Island.....	.....	.....	1	.....	.....	.....	.....	.....	.....
Connecticut.....	9	.....	8	.....	.....	.....	.....	3	1
New York.....	40	.....	22	.....	1	.....	1	5	22
New Jersey.....	18	.....	18	327	.....	.....	1	5	10
Pennsylvania.....	242	1	189	1,949	13	6	27	21	21
Delaware.....	.....	.....	10	.....	.....	.....	.....	.....	.....
Maryland.....	18	2	6	.....	.....	.....	.....	1	2
Virginia.....	33	1	4	146	1	.....	.....	.....	3
North Carolina.....	2	.....	.....	.....	.....	.....	.....	.....	3
Georgia.....	4	.....	.....	.....	.....	.....	.....	.....	.....
Alabama.....	24	20	4	82	.....	.....	.....	.....	1
Texas.....	2	.....	1	.....	.....	.....	.....	.....	.....
West Virginia.....	9	.....	8	822	2	.....	.....	.....	.....
Kentucky.....	7	.....	7	126	.....	.....	1	.....	.....
Tennessee.....	17	3	5	115	2	.....	1	1	8
Ohio.....	77	1	55	1,301	6	.....	9	1	1
Indiana.....	2	.....	12	340	1	.....	2	1	.....
Illinois.....	16	.....	22	474	6	1	2	1	.....
Missouri.....	12	.....	5	.....	1	.....	.....	.....	1
Iowa.....	.....	.....	1	.....	.....	.....	.....	.....	.....
Michigan.....	27	.....	3	.....	.....	.....	.....	1	.....
Wisconsin.....	14	1	1	100	.....	.....	.....	.....	.....
Minnesota.....	1	.....	2	.....	.....	.....	.....	.....	.....
Kansas.....	.....	.....	1	.....	.....	.....	.....	.....	.....
Nebraska.....	.....	.....	1	32	.....	.....	.....	.....	.....
Colorado.....	2	.....	2	27	1	.....	.....	.....	.....
Wyoming Territory...	.....	.....	1	.....	.....	.....	.....	.....	.....
California.....	1	.....	4	96	.....	.....	1	.....	.....
Oregon.....	.....	1	.....	.....	.....	.....	.....	.....	.....
Washington Territ'ry	1	.....	.....	.....	.....	.....	.....	.....	.....
Total.....	583	30	414	6,350	35	8	50	41	75

Number of rolling mills building, 10. Number of steel plants building, 8, (3 Bessemer, 1 Clapp-Griffiths, 3 open-hearth, and 1 crucible.)  
\* Excludes all abandoned blast furnaces.  
† Excludes all steel works which produce neither rolled iron nor rolled steel.



PRODUCTION OF PIG IRON IN THE UNITED STATES FROM  
1854 TO 1887.

Calendar Years.	Net tons of 2,000 pounds.			
	Anthracite and mixed anthracite and coke.	Charcoal.	Coke and raw bituminous.	Total.
1854.....	339,435	342,298	54,485	736,218
1855.....	381,866	339,922	62,390	784,178
1856.....	443,113	370,470	69,554	883,137
1857.....	390,385	330,321	77,451	798,157
1858.....	361,430	285,313	58,351	705,094
1859.....	471,745	284,041	84,841	840,627
1860.....	519,211	278,331	122,228	919,770
1861.....	409,229	195,278	127,037	731,544
1862.....	470,315	186,660	130,687	787,662
1863.....	577,638	212,005	157,961	947,604
1864.....	684,018	241,853	210,125	1,135,996
1865.....	479,558	262,342	189,682	931,582
1866.....	749,367	332,580	268,396	1,350,343
1867.....	798,638	344,341	318,647	1,461,626
1868.....	893,000	370,000	340,000	1,603,000
1869.....	971,150	392,150	553,341	1,916,641
1870.....	930,000	365,000	570,000	1,865,000
1871.....	956,608	385,000	570,000	1,911,608
1872.....	1,369,812	500,587	984,159	2,854,558
1873.....	1,312,754	577,620	977,904	2,868,278
1874.....	1,202,144	576,557	910,712	2,689,413
1875.....	908,046	410,990	947,545	2,266,581
1876.....	794,578	308,649	990,009	2,093,236
1877.....	934,797	317,843	1,061,945	2,314,585
1878.....	1,092,870	293,399	1,191,092	2,577,361
1879.....	1,273,024	358,873	1,438,978	3,070,875
1880.....	1,807,651	537,558	1,950,205	4,295,414
1881.....	1,734,462	638,838	2,268,264	4,641,564
1882.....	2,042,138	697,906	2,438,078	5,178,122
1883.....	1,885,596	571,726	2,689,650	5,146,972
1884.....	1,586,453	458,418	2,544,742	4,589,613
1885.....	1,454,390	399,844	2,675,635	4,529,869
1886.....	2,099,597	459,557	3,806,174	6,365,328
1887.....	2,338,389	578,182	4,270,635	7,187,206

GROWTH OF OUR PIG-IRON INDUSTRY SINCE 1810.

The following table shows the production of pig iron in the United States from 1810 to 1887, in tons of 2,240 pounds. The figures for 1810, 1840, 1850, 1860, and 1870 have been compiled from the census reports and are for census years; for 1880 and 1887 they have been taken from the records of the American Iron and Steel Association. The figures for 1820 and 1830 are derived from trustworthy sources, but are not official. In the years last mentioned the census statistics do not give the quantities of pig iron produced.

Years.	Gross tons.	Years.	Gross tons.	Years.	Gross tons.
1810.....	53,908	1840.....	286,903	1870.....	1,832,875
1820.....	20,000	1850.....	564,755	1880.....	3,835,191
1830.....	165,000	1860.....	987,559	1887.....	6,417,148

## PRODUCTION OF ALL KINDS OF STEEL IN THE UNITED STATES FROM 1868 TO 1887.

Years.	Net tons of 2,000 pounds.				
	Bessemer steel ingots.	Open-hearth steel ingots.	Crucible steel ingots.	All other steel.	Total.
1868 .....	8,500	.....	21,500		30,000
1869 .....	12,000	1,000	22,000		35,000
1870 .....	42,000	1,500	33,500		77,000
1871 .....	45,000	2,000	35,000		82,000
1872 .....	120,108	3,000	29,260	7,740	160,108
1873 .....	170,652	3,500	34,786	13,714	222,652
1874 .....	191,933	7,000	36,328	6,353	241,614
1875 .....	375,517	9,050	39,401	12,607	436,575
1876 .....	525,996	21,490	39,382	10,306	597,174
1877 .....	560,587	25,031	40,430	11,924	637,972
1878 .....	732,226	36,126	42,906	8,556	819,814
1879 .....	928,972	56,290	56,780	5,464	1,047,506
1880 .....	1,203,173	112,953	72,424	8,465	1,397,015
1881 .....	1,539,157	146,946	89,762	3,047	1,778,912
1882 .....	1,696,450	160,542	85,089	3,014	1,945,095
1883 .....	1,654,627	133,679	80,455	5,598	1,874,359
1884 .....	1,540,595	131,617	59,662	5,111	1,736,985
1885 .....	1,701,762	149,381	64,511	1,696	1,917,350
1886 .....	2,541,493	245,250	80,609	2,651	2,870,003
1887 .....	3,288,357	360,717	84,421	6,265	3,739,760

In 1863 the production of all kinds of steel in the United States was 9,044 net tons; in 1864, 10,369 tons; in 1865, 15,262 tons; in 1866, 18,973 tons; and in 1867, 22,000 tons, including 3,000 tons of Bessemer steel ingots. Bessemer steel was first made in the United States in the fall of 1864. The manufacture of open-hearth steel in the United States was begun in December, 1868.

## PRODUCTION OF ROLLED IRON IN THE UNITED STATES FROM 1864 TO 1887.

The production in the United States of all kinds of rolled iron from 1864 to 1887 is given in detail in the following table, in net tons. Rolled steel is not included.

Years.	Tons of 2,000 pounds.			Years.	Tons of 2,000 pounds.		
	Iron rails.	Other rolled iron.	Total.		Iron rails.	Other rolled iron.	Total.
1864.....	335,369	536,958	872,327	1876....	467,168	1,042,101	1,509,269
1865.....	356,292	500,048	856,340	1877....	332,540	1,144,219	1,476,759
1866.....	430,778	595,311	1,026,089	1878....	322,890	1,232,686	1,555,576
1867.....	459,558	579,838	1,039,396	1879....	420,160	1,627,324	2,047,484
1868.....	499,489	598,286	1,097,775	1880....	493,762	1,838,906	2,332,668
1869.....	583,936	642,420	1,226,356	1881....	488,581	2,155,346	2,643,927
1870.....	586,000	705,000	1,291,000	1882....	227,874	2,265,957	2,493,831
1871.....	737,483	710,000	1,447,483	1883....	64,954	2,283,920	2,348,874
1872.....	905,930	941,992	1,847,922	1884....	25,560	1,931,747	1,957,307
1873.....	761,062	1,076,368	1,837,430	1885....	14,815	1,789,711	1,804,526
1874.....	584,469	1,110,147	1,694,616	1886....	23,679	2,259,943	2,283,622
1875.....	501,649	1,097,867	1,599,516	1887....	23,062	2,565,438	2,588,500



## PRODUCTION AND PRICES OF IRON RAILS IN THE UNITED STATES FROM 1849 TO 1887.

In the following table is given the production, in net tons, and prices, per gross ton, of standard sections of iron rails in the United States from 1849 to 1887.

Calendar Years.	Net tons.	Average price per gross ton.	Calendar Years.	Net tons.	Average price per gross ton.
1849.....	24,318	\$53.88	1869.....	583,936	\$77.25
1850.....	41,083	47.88	1870.....	586,000	72.25
1851.....	50,603	45.63	1871.....	737,483	70.38
1852.....	62,478	48.38	1872.....	905,930	85.13
1853.....	87,864	77.25	1873.....	761,062	76.67
1854.....	108,016	80.13	1874.....	584,469	58.75
1855.....	138,674	62.88	1875.....	501,649	47.75
1856.....	180,018	64.38	1876.....	467,168	41.25
1857.....	161,918	64.25	1877.....	332,540	35.25
1858.....	163,712	50.00	1878.....	322,890	33.75
1859.....	195,454	49.38	1879.....	420,160	41.25
1860.....	205,038	48.00	1880.....	493,762	49.25
1861.....	189,818	42.38	1881.....	488,581	47.13
1862.....	213,912	41.75	1882.....	227,874	45.50
1863.....	275,768	76.88	1883.....	64,954	.....*
1864.....	335,369	126.00	1884.....	25,560	.....
1865.....	356,292	98.63	1885.....	14,815	.....
1866.....	430,778	86.75	1886.....	23,679	.....
1867.....	459,558	83.13	1887.....	23,062	.....
1868.....	499,489	78.88			

\* Since the beginning of 1883 the manufacture of iron rails in the United States has been almost entirely superseded by the manufacture of steel rails. Such iron rails as have since been made in this country have been chiefly street rails and light rails for mines and tramways, the prices of which, if added to the above table, would be misleading. As there has been virtually no demand for standard sections of iron rails since 1882 there have been no market quotations for them since that year. (*See page 19.*)

## PRODUCTION OF ALL KINDS OF RAILS IN THE UNITED STATES SINCE 1849.

The production of all kinds of rails in the United States since 1849 has been as follows, in net tons. Prior to 1867 all rails in this country were made of iron.

Years.	Net tons.	Years.	Net tons.	Years.	Net tons.	Years.	Net tons.
1849.....	24,318	1859.....	195,454	1869.....	593,586	1879.....	1,113,273
1850.....	44,083	1860.....	205,038	1870.....	620,000	1880.....	1,461,837
1851.....	50,603	1861.....	189,818	1871.....	775,733	1881.....	1,844,100
1852.....	62,478	1862.....	213,912	1872.....	1,000,000	1882.....	1,688,794
1853.....	87,864	1863.....	275,768	1873.....	890,077	1883.....	1,360,694
1854.....	108,016	1864.....	335,369	1874.....	729,413	1884.....	1,144,851
1855.....	138,674	1865.....	356,292	1875.....	792,512	1885.....	1,094,215
1856.....	180,018	1866.....	430,778	1876.....	879,629	1886.....	1,792,601
1857.....	161,918	1867.....	462,108	1877.....	764,709	1887.....	2,396,397
1858.....	163,712	1868.....	506,714	1878.....	882,685		



PRODUCTION AND PRICES OF BESSEMER STEEL RAILS IN THE UNITED STATES FROM 1867 TO 1887.

The following table shows the annual production in gross tons of Bessemer steel rails in the United States since the beginning of their manufacture in 1867, together with the average annual price at which they have been sold at works in Pennsylvania and the rates of duty imposed on foreign rails.

Calendar Years.	Production in gross tons.	Price in currency.	Duty.
1867 .....	2,277	\$166.00	45 per cent. <i>ad valorem.</i>
1868 .....	6,451	158.50	
1869 .....	8,616	132.25	
1870 .....	30,357	106.75	
1871 .....	34,152	102.50	\$28 per ton to Aug. 1, 1872; \$25.20 to Mar. 3, 1875; \$28 from that date to July 1, 1883.
1872 .....	83,991	112.00	
1873 .....	115,192	120.50	
1874 .....	129,414	94.25	
1875 .....	259,699	68.75	
1876 .....	368,269	59.25	
1877 .....	385,865	45.50	
1878 .....	491,427	42.25	
1879 .....	610,682	48.25	
1880 .....	852,196	67.50	
1881 .....	1,187,770	61.13	\$17 per ton from July 1, 1883.
1882 .....	1,284,067	48.50	
1883 .....	1,148,709	37.75	
1884 .....	996,983	30.75	
1885 .....	959,471	28.50	
1886 .....	1,574,703	34.50	
1887 .....	2,101,904	37.08	

The lowest average annual price at which Bessemer steel rails have been sold in this country was reached in 1885, namely, \$28.50, but sales were made at still lower figures in both 1884 and 1885—as low in a few instances as \$26 and \$27. (See page 20.)

AVERAGE RATES OF TRANSPORTATION IN THE UNITED STATES FROM 1868 TO 1887.

The following table gives the average freight charges per bushel for the transportation of wheat from Chicago to New York from 1868 to 1887. This table has been compiled by the Bureau of Statistics of the Treasury Department.

Calendar Years.	By lake and canal.	By lake and rail.	By all rail.	Calendar Years.	By lake and canal.	By lake and rail.	By all rail.
	Cents.	Cents.	Cents.		Cents.	Cents.	Cents.
1868.....	24.54	29.00	42.60	1878.....	9.15	11.40	17.70
1869.....	23.12	25.00	35.10	1879.....	11.60	13.30	17.30
1870.....	17.10	22.00	33.30	1880.....	12.27	15.70	19.70
1871.....	20.24	25.00	31.00	1881.....	8.19	10.40	14.40
1872.....	24.50	28.00	33.50	1882.....	7.89	10.90	14.60
1873.....	19.19	26.90	33.20	1883.....	8.40	11.50	16.50
1874.....	14.10	16.90	28.70	1884.....	6.31	9.95	13.125
1875.....	11.43	14.60	24.10	1885.....	5.87	9.02	14.00
1876.....	9.58	11.80	16.50	1886.....	8.71	12.00	16.50
1877.....	11.24	15.80	20.30	1887.....	8.28	12.00	16.50

## PRODUCTION AND CONSUMPTION OF ALL KINDS OF RAILS IN THE UNITED STATES FROM 1867 TO 1887.

The production of iron and steel rails in the United States since the beginning of the manufacture of Bessemer steel rails in 1867 is given in detail in the following table.

Calendar Years.	Net tons of 2,000 pounds.				
	Bessemer steel rails.	Open-hearth steel rails.	Total steel rails.	Iron rails, all kinds.	Total iron and steel.
1867.....	2,550	.....	2,550	459,558	462,108
1868.....	7,225	.....	7,225	499,489	506,714
1869.....	9,650	.....	9,650	583,936	593,586
1870.....	34,000	.....	34,000	586,000	620,000
1871.....	38,250	.....	38,250	737,483	775,733
1872.....	94,070	.....	94,070	905,930	1,000,000
1873.....	129,015	.....	129,015	761,062	890,077
1874.....	144,944	.....	144,944	584,469	729,413
1875.....	290,863	.....	290,863	501,649	792,512
1876.....	412,461	.....	412,461	467,168	879,629
1877.....	432,169	.....	432,169	332,540	764,709
1878.....	550,398	9,397	559,795	322,890	882,685
1879.....	683,964	9,149	693,113	420,160	1,113,273
1880.....	954,460	13,615	968,075	493,762	1,461,837
1881.....	1,330,302	25,217	1,355,519	488,581	1,844,100
1882.....	1,438,155	22,765	1,460,920	227,874	1,688,794
1883.....	1,286,554	9,186	1,295,740	64,954	1,360,694
1884.....	1,116,621	2,670	1,119,291	25,560	1,144,851
1885.....	1,074,607	4,793	1,079,400	14,815	1,094,215
1886.....	1,763,667	5,255	1,768,922	23,679	1,792,601
1887.....	2,354,132	19,203	2,373,335	23,062	2,396,397

The following table shows the approximate consumption of rails of all kinds.

Calendar Years.	Made in United States.	Imported.		Approximate consumption. Net tons.
		Iron.	Steel.	
1867.....	462,108	163,049		625,157
1868.....	506,714	250,081		756,795
1869.....	593,586	313,163		906,749
1870.....	620,000	399,153		1,019,153
1871.....	775,733	566,202		1,341,935
1872.....	1,000,000	381,064	149,786	1,530,850
1873.....	890,077	99,201	159,571	1,148,849
1874.....	729,413	7,796	100,515	837,724
1875.....	792,512	1,174	18,274	811,960
1876.....	879,629	287	none	879,916
1877.....	764,709	none	35	764,744
1878.....	882,685	none	10	882,695
1879.....	1,113,273	19,090	25,057	1,157,420
1880.....	1,461,837	132,459	158,230	1,752,526
1881.....	1,844,100	137,013	249,308	2,230,421
1882.....	1,688,794	41,992	182,135	1,912,921
1883.....	1,360,694	757	38,220	1,399,671
1884.....	1,144,851	94	3,074	1,148,019
1885.....	1,094,215	57	2,395	1,096,667
1886.....	1,792,601	7	46,571	1,839,179
1887.....	2,396,397	270	154,099	2,550,766



THE PRODUCTION OF IRON AND STEEL IN THE UNITED STATES IN 1887 COMPARED WITH THAT OF 1856.

The following table, compiled for 1856 from Professor J. P. Lesley's Iron Manufacturer's Guide and for 1887 from the records of the American Iron and Steel Association, gives for comparison the production of some of the leading articles of iron and steel in these years in all the grand divisions of the United States. While not comprehensive of the whole range of our iron and steel industries it is complete for the products mentioned. This table shows very clearly the relative growth of the different grand divisions in the manufacture of iron and steel in the last thirty-two years, which take us back to four years before the civil war. In 1856 the Revenue tariff of 1846 had been in force for ten years. In 1887 the Protective policy established in 1861 was still in force.

Territorial Divisions.	Net tons of 2,000 pounds, except nails.				
	Pig iron.	Rolled iron including iron nail plate and iron rails.	Nails. Kegs of 100 pounds.	Rails of iron and steel.	Blooms from pig, scrap, and iron ore.
New England.....1856	34,051	78,989	560,000	20,015	6,776
.....1887	37,252	85,101	267,453	40,683	.....
Middle States.....1856	614,593	366,542	1,021,709	124,708	63,790
.....1887	4,153,744	1,591,666	2,584,282	1,383,861	38,087
Southern States.....1856	143,184	70,601	217,168	12,869	19,619
.....1887	929,436	174,875	1,328,037	12,598	5,119
Western States.....1856	119,870	41,718	25,872	2,070	1,517
.....1887	2,039,897	682,309	2,425,180	930,387	100
Far Western States.....1856	.....	.....	.....	.....	.....
.....1887	26,877	54,549	303,918	28,868	.....
Total.....1856	911,698	557,850	1,824,749	159,662	91,702*
.....1887	7,187,206	2,588,500	6,908,870	2,396,397	43,306

\* Including 7,840 tons sold direct in bars from the bloomaries and about 15,680 tons hammered into bars, axles, and anchors by the forges, leaving 68,182 tons as the total quantity of blooms going into rolling mills.

All the rails made in 1856, namely, 159,662 net tons, were iron rails, while all those made in 1887, namely, 2,396,397 net tons, were steel rails, except only 23,062 net tons of iron rails. During the period covered by these thirty-two years we built up an iron-rail industry which in 1872 produced 905,930 net tons of iron rails, and when iron rails had served their day we built up a steel-rail industry which in 1887 produced 2,373,335 net tons of steel rails. This change from iron to steel rails is one of the most remarkable revolutions in our industrial history.

PRODUCTION OF SPIEGELEISEN IN THE UNITED STATES.

The following table shows the production of spiegeleisen and ferromanganese in the United States. This production is included in that of pig iron elsewhere given.

Years.	Net tons.	Years.	Net tons.	Years.	Net tons.
1875.....	7,832	1880.....	19,603	1885.....	34,671
1876.....	6,616	1881.....	21,086	1886.....	47,982
1877.....	8,845	1882.....	21,963	1887.....	47,598
1878.....	10,674	1883.....	24,574		
1879.....	13,931	1884.....	33,893		



### PRODUCTION OF BLOOMS AND BILLETS.

The production in the United States of wrought iron from ore in forges is now almost entirely confined to the Lake Champlain district of New York. Blooms from pig and scrap iron are made chiefly in Pennsylvania.

Years.	Net tons of 2,000 pounds.			
	Ore blooms and billets made in New York.	Total make of ore blooms and billets.	Pig and scrap blooms made in Pennsylvania.	Total make of pig and scrap blooms.
1875.....	23,666	24,416	19,032	24,827
1876.....	20,202	20,784	13,401	23,844
1877.....	23,466	24,227	16,517	23,073
1878.....	22,829	24,139	15,121	25,906
1879.....	27,290	30,282	23,956	32,071
1880.....	34,351	40,652	24,319	33,937
1881.....	39,892	45,369	28,342	39,237
1882.....	43,911	48,354	29,408	42,939
1883.....	31,347	35,237	28,190	39,521
1884.....	27,745	29,789	19,992	27,216
1885.....	18,981	19,887	15,462	21,813
1886.....	15,507	15,878	20,836	26,031
1887.....	15,043	15,088	21,982	28,218

The production of both products from 1865 to 1887 has been as follows.

Years.	Net tons.	Years.	Net tons.	Years.	Net tons.
1865.....	63,977	1873.....	62,564	1881.....	84,606
1866.....	73,555	1874.....	61,670	1882.....	91,293
1867.....	73,073	1875.....	49,243	1883.....	74,758
1868.....	75,200	1876.....	44,628	1884.....	57,005
1869.....	69,500	1877.....	47,300	1885.....	41,700
1870.....	62,259	1878.....	50,045	1886.....	41,909
1871.....	63,000	1879.....	62,353	1887.....	43,306
1872.....	58,000	1880.....	74,589		

### SHIPMENTS OF IRON ORE FROM THE LAKE SUPERIOR MINES.

According to the *Marquette Mining Journal* the annual shipments of iron ore from the mines of the Lake Superior region have been as follows, in gross tons. (See page 11.)

Years.	Gross tons.	Years.	Gross tons.	Years.	Gross tons.
1854.....	3,000	1866.....	278,796	1878.....	1,111,110
1855.....	1,449	1867.....	473,567	1879.....	1,375,691
1856.....	36,343	1868.....	491,449	1880.....	1,908,745
1857.....	25,646	1869.....	617,444	1881.....	2,306,505
1858.....	15,876	1870.....	830,940	1882.....	2,965,412
1859.....	68,832	1871.....	779,607	1883.....	2,353,288
1860.....	114,401	1872.....	900,901	1884.....	2,518,692
1861.....	49,909	1873.....	1,162,458	1885.....	2,466,538
1862.....	124,169	1874.....	919,557	1886.....	3,568,357
1863.....	203,055	1875.....	891,257	1887.....	4,738,903
1864.....	243,127	1876.....	992,764		
1865.....	236,208	1877.....	1,015,087	Total.....	35,789,083

## IMPORTS OF IRON AND STEEL INTO THE UNITED STATES.

In the following table the quantities of imported pig, bar, band, plate, and sheet iron, rails, old iron, and tinplates are given for every year mentioned, and for 1882 and succeeding years the quantities of other iron and steel which could not be obtained for preceding years are added. In none of the years mentioned, however, is the weight of machinery, hardware, cutlery, fire-arms, and similar manufactured products included. The years mentioned are calendar years.

Years.	Gross tons.	Years.	Gross tons.	Years.	Gross tons.
1871.....	1,141,933	1877.....	211,408	1883.....	694,330
1872.....	1,183,066	1878.....	211,102	1884.....	654,696
1873.....	640,858	1879.....	769,984	1885.....	578,478
1874.....	301,647	1880.....	1,886,019	1886.....	1,098,565
1875.....	239,712	1881.....	1,180,749	1887.....	1,783,251
1876.....	204,211	1882.....	1,192,296		

The following table shows the foreign values of all our imports of iron and steel, including fire-arms, hardware, cutlery, machinery, etc., from 1871 to 1887.

Years.	Values.	Years.	Values.	Years.	Values.
1871.....	\$57,866,299	1877.....	\$19,874,399	1883.....	\$47,506,306
1872.....	75,617,677	1878.....	18,013,010	1884.....	37,078,122
1873.....	60,005,538	1879.....	33,331,569	1885.....	31,144,552
1874.....	37,652,192	1880.....	80,443,362	1886.....	41,630,779
1875.....	27,363,101	1881.....	61,555,077	1887.....	56,420,607
1876.....	20,016,603	1882.....	67,075,125		

The total importations of these seventeen years aggregate \$772,594,318 in foreign value. Their cost to our people was, however, much more than this sum—importers' profits, ocean freight, customs duties, and other charges bringing the total cost up to almost if not altogether double the foreign value.

## IMPORTS OF IRON ORE INTO THE UNITED STATES.

Our imports of iron ore in 1887 amounted to 1,194,301 gross tons. Our total consumption of iron ore in 1887 was about 12,500,000 gross tons, against 11,000,000 tons in 1886. In the following table we give the imports of iron ore from 1879 to 1887, in gross tons. Previous to 1879 the imports never amounted in any one year to 100,000 tons.

Calendar years.	Gross tons.	Calendar years.	Gross tons.
1879.....	284,141	1884.....	487,820
1880.....	493,408	1885.....	390,786
1881.....	782,887	1886.....	1,039,433
1882.....	589,655	1887.....	1,194,301
1883.....	490,875		

The first considerable importation of iron ore into this country was in 1873, when about 60,000 tons were imported, the most of which came from Canada. In 1879 we commenced to import largely from the Mediterranean countries. Before that year the imports from Canada had fallen off. Our first imports from Cuba commenced in 1884.

Our supply of foreign iron ore comes almost wholly from Spain, Algeria, Elba, and Cuba. Very little is now obtained from Canada. Ireland has sent us a few cargoes of iron ore in late years, and the island of Seriphos in the Grecian Archipelago has sent us still larger quantities.



PRICES OF IRON AND STEEL UNDER A REVENUE TARIFF  
AND UNDER PROTECTION.

The prices given in the following table embrace the revenue tariff period before the war and the last fourteen years of the Protective-tariff period which was ushered in by the Morrill tariff of 1861. In these fourteen years the inflation of values caused by the expansion of the currency as an incident of our civil war had passed away. These prices are yearly averages of monthly quotations for No. 1 anthracite foundry pig iron, best refined bar iron, and iron rails, all per gross ton, at Philadelphia ; nails, per keg, wholesale, at Philadelphia ; and steel rails, per gross ton, at Pennsylvania mills.

Years.	Prices under the Revenue tariffs of 1846 and 1857.				Years.	Prices under our present Protective tariff.			
	Pig iron.	Bar iron.	Iron rails.	Cut nails.		Pig iron.	Bar iron.	Steel rails.	Cut nails.
1846 .....	\$27 <sup>7</sup> / <sub>8</sub>	\$91.66	.....	.....	1874.....	\$30 <sup>1</sup> / <sub>4</sub>	\$67.95	\$94 <sup>1</sup> / <sub>4</sub>	\$3.99
1847 .....	30 <sup>1</sup> / <sub>4</sub>	86.04	\$69	\$4.46	1875.....	25 <sup>1</sup> / <sub>2</sub>	60.85	68 <sup>3</sup> / <sub>4</sub>	3.42
1848 .....	26 <sup>1</sup> / <sub>2</sub>	79.33	62 <sup>1</sup> / <sub>4</sub>	4.30	1876.....	22 <sup>1</sup> / <sub>4</sub>	52.08	59 <sup>1</sup> / <sub>4</sub>	2.98
1849 .....	22 <sup>3</sup> / <sub>4</sub>	67.50	53 <sup>7</sup> / <sub>8</sub>	4.00	1877.....	18 <sup>7</sup> / <sub>8</sub>	45.55	45 <sup>1</sup> / <sub>2</sub>	2.57
1850 .....	20 <sup>7</sup> / <sub>8</sub>	59.54	47 <sup>7</sup> / <sub>8</sub>	3.65	1878.....	17 <sup>5</sup> / <sub>8</sub>	44.24	42 <sup>1</sup> / <sub>4</sub>	2.31
1851 ..	21 <sup>3</sup> / <sub>8</sub>	54.66	45 <sup>5</sup> / <sub>8</sub>	3.30	1879.....	21 <sup>1</sup> / <sub>2</sub>	51.85	48 <sup>1</sup> / <sub>4</sub>	2.69
1852 .....	22 <sup>5</sup> / <sub>8</sub>	58.79	48 <sup>3</sup> / <sub>8</sub>	3.08	1880.....	28 <sup>1</sup> / <sub>2</sub>	60.38	67 <sup>1</sup> / <sub>2</sub>	3.68
1853 .....	36 <sup>1</sup> / <sub>8</sub>	83.50	77 <sup>1</sup> / <sub>4</sub>	4.50	1881.....	25 <sup>1</sup> / <sub>8</sub>	58.05	61 <sup>1</sup> / <sub>8</sub>	3.09
1854 .....	36 <sup>7</sup> / <sub>8</sub>	91.33	80 <sup>1</sup> / <sub>8</sub>	4.60	1882.....	25 <sup>3</sup> / <sub>4</sub>	61.41	48 <sup>1</sup> / <sub>2</sub>	3.47
1855 .....	27 <sup>3</sup> / <sub>4</sub>	74.58	62 <sup>7</sup> / <sub>8</sub>	4.10	1883.....	22 <sup>3</sup> / <sub>8</sub>	50.30	37 <sup>3</sup> / <sub>4</sub>	3.06
1856 .....	27 <sup>1</sup> / <sub>8</sub>	73.75	64 <sup>3</sup> / <sub>8</sub>	3.94	1884.....	19 <sup>7</sup> / <sub>8</sub>	44.05	30 <sup>3</sup> / <sub>4</sub>	2.39
1857 .....	26 <sup>3</sup> / <sub>8</sub>	71.04	64 <sup>1</sup> / <sub>4</sub>	3.72	1885.....	18	40.32	28 <sup>1</sup> / <sub>2</sub>	2.33
1858 .....	22 <sup>1</sup> / <sub>4</sub>	62.29	50	3.50	1886.....	18 <sup>3</sup> / <sub>4</sub>	43.12	34 <sup>1</sup> / <sub>2</sub>	2.27
1859 .....	23 <sup>3</sup> / <sub>8</sub>	60.00	49 <sup>3</sup> / <sub>8</sub>	3.96	1887.....	21	49.37	37 <sup>1</sup> / <sub>8</sub>	2.30
1860 .....	22 <sup>3</sup> / <sub>4</sub>	58.75	48	3.13					
Average	26 <sup>1</sup> / <sub>4</sub>	71.52	58 <sup>3</sup> / <sub>4</sub>	3.87	Average	22 <sup>1</sup> / <sub>2</sub>	52.11	50 <sup>1</sup> / <sub>4</sub>	2.90

These figures show that pig iron, bar iron, and nails have been cheaper under Protection than under a revenue policy, and that steel rails have been sold under Protection at much lower prices than iron rails were sold under a revenue tariff. (*For monthly prices see pages 17-21.*)

PRODUCTION OF CUT NAILS IN THE UNITED STATES SINCE 1872.

The production of iron and steel cut nails in the United States, not including wire nails, has been as follows, from 1872 to 1887, in kegs of 100 pounds.

Years.	Kegs.	Years.	Kegs.	Years.	Kegs.	Years.	Kegs.
1872.....	4,065,322	1876.....	4,157,814	1880.....	5,370,512	1884.....	7,581,379
1873.....	4,024,704	1877.....	4,828,918	1881.....	5,794,206	1885.....	6,696,815
1874.....	4,912,180	1878.....	4,396,130	1882.....	6,147,097	1886.....	8,160,973
1875.....	4,726,881	1879.....	5,011,021	1883.....	7,762,737	1887.....	6,908,870

In 1884 the production of cut steel nails was commenced in the United States, and in 1887 over half the production of cut nails was made of steel. The annual production is included in the above table. A few years ago the manufacture of wire nails was commenced in this country, and it has since made rapid progress. The smaller sizes of wire nails are those which chiefly compete with cut nails. In November, 1887, there were 47 wire-nail works in the United States. The production in 1886 was about 600,000 kegs of 100 pounds each. In 1887 it was about 1,250,000 kegs.



PRODUCTION OF IRON ORE AND COAL BY COUNTRIES.

In the production of iron ore and coal, "raw materials" of the manufacture of pig iron, the United States is only excelled by Great Britain. The following table shows our production of these minerals in 1887 in comparison with their production by other countries in that year or in the most recent years for which statistics or data for a careful estimate are available. English tons of 2,240 pounds are used in giving the statistics of Great Britain, the United States, Russia, and "other countries," and metric tons of 2,204 pounds are used for all the Continental countries of Europe except Russia. As the difference between the gross ton and the metric ton is so trifling it is not necessary to change official figures. Unofficial figures are prefixed with a star.

Countries.	Iron Ore.		Coal.	
	Years.	Tons.	Years.	Tons.
Great Britain.....	1887.....	13,098,041	1887.....	162,119,812
United States.....	1887.....	*11,300,000	1887.....	†110,727,906
Germany and Luxemburg.....	1887.....	9,299,500	1886.....	73,637,596
France.....	1887.....	*2,600,000	1887.....	21,402,949
Belgium.....	1886.....	153,378	1887.....	18,378,624
Austria and Hungary.....	1887.....	*2,000,000	1886.....	20,779,441
Russia.....	1887.....	*1,500,000	1886.....	*4,650,000
Sweden.....	1886.....	872,479	1887.....	*300,000
Spain.....	1887.....	*6,000,000	1887.....	*1,000,000
Italy.....	1886.....	209,082	1886.....	243,325
Other countries.....	1887.....	*2,000,000	1887.....	*10,000,000
Total.....		49,032,480		423,239,653
Percentage of the United States .....		23		26

The Lake Superior region is the most important source of supply of iron ore in the United States. (See page 8.) It embraces that portion of the States of Michigan, Wisconsin, and Minnesota which lies near this largest of all American lakes.

† Exclusive of colliery consumption.

THE WORLD'S PRODUCTION OF PIG IRON FROM 1800 TO 1887.

From the most reliable information that is obtainable we have compiled the following table of the world's production of pig iron at various periods since 1800.

Years.	Gross tons.	Years.	Gross tons.	Years.	Gross tons.
1800 .....	825,000	1870.....	11,900,000	1879.....	13,950,000
1830 .....	1,825,000	1871.....	12,500,000	1880.....	17,950,000
1850 .....	4,750,000	1872.....	13,925,000	1881.....	19,400,000
1856 .....	7,000,000	1873.....	14,675,000	1882.....	20,750,000
1865 .....	9,250,000	1874.....	13,500,000	1883.....	21,000,000
1866 .....	9,300,000	1875.....	13,675,000	1884.....	19,475,000
1867 .....	9,850,000	1876.....	13,475,000	1885.....	19,100,000
1868 .....	10,400,000	1877.....	13,675,000	1886.....	20,385,571
1869 .....	11,575,000	1878.....	13,925,000	1887.....	22,170,959

No exhibit could more clearly and effectually show the progress which the civilized world has made in the nineteenth century in the use of iron and steel. The world has increased its production of iron in eighty-seven years of the present century more than twenty-fold. Its increased production of steel in the same period has been relatively much greater.

### PRODUCTION OF PIG IRON AND STEEL BY COUNTRIES.

The following table gives the world's production of pig iron and steel in the most recent years for which statistics are available. English tons of 2,240 pounds are used in giving the statistics of Great Britain, the United States, Russia, and "other countries," and metric tons of 2,204 pounds for all the Continental countries of Europe except Russia. As the difference between the gross ton and the metric ton is so trifling it is not necessary to change official figures.

Countries.	Pig iron.		Steel.	
	Years.	Tons.	Years.	Tons.
Great Britain.....	1887.....	7,559,518	1887.....	3,170,507
United States.....	1887.....	6,417,148	1887.....	3,339,071
Germany and Luxemburg.....	1887.....	3,907,364	1887.....	1,685,400
France.....	1887.....	1,580,851	1887.....	440,956
Belgium.....	1887.....	754,481	1887.....	206,350
Austria and Hungary.....	1887.....	679,224	1887.....	276,920
Russia.....	1882.....	498,400	1882.....	225,140
Sweden.....	1886.....	442,457	1886.....	78,231
Spain.....	1885.....	159,225	1886.....	25,000
Italy.....	1886.....	12,291	1886.....	23,760
Other countries (estimated).....	1887.....	160,000	1887.....	35,000
Total.....		22,170,959		9,506,335
Percentage of the United States.....		29		35

This table places the United States first in the production of steel and second only to Great Britain in the production of pig iron. It is also the first country in the production of rolled iron. In 1887 Great Britain rolled 1,701,312 gross tons of puddled iron, a much larger quantity than any other European country, while in the same year the United States rolled 2,311,160 gross tons, or 609,848 tons more than Great Britain. The United States is shown by the table to be the producer of 29 per cent. of the world's annual output of pig iron, and of 35 per cent. of its annual output of steel.

### PRODUCTION OF PIG IRON IN GREAT BRITAIN FROM 1740 TO 1887.

The following table shows the growth of the pig-iron industry of Great Britain from 1740 to 1887. For this valuable and accurate table we are indebted to the courtesy of Mr. Richard Meade, of the Mineral Statistics Branch of the Home Department of the British Government. The table is compiled from the records of the Department.

Years.	Gross tons.	Years.	Gross tons.	Years.	Gross tons.	Years.	Gross tons.
1740.....	17,350	1840...	1,396,400	1861...	3,712,390	1875...	6,365,462
1788.....	68,300	1842...	1,099,138	1862...	3,943,469	1876...	6,555,997
1796.....	125,079	1843...	1,215,350	1863...	4,510,040	1877...	6,608,664
1806.....	243,851	1844...	1,999,608	1864...	4,767,951	1878...	6,381,051
1818.....	325,000	1845...	1,512,500	1865...	4,825,254	1879...	5,995,337
1820.....	400,000	1847...	1,999,508	1866...	4,523,897	1880...	7,749,233
1823.....	455,166	1852...	2,701,000	1867...	4,761,023	1881...	8,144,449
1825.....	581,367	1854...	3,069,838	1868...	4,970,206	1882...	8,586,680
1827.....	690,000	1855...	3,218,154	1869...	5,445,757	1883...	8,529,300
1828.....	703,184	1856...	3,586,377	1870...	5,963,515	1884...	7,811,727
1830.....	677,417	1857...	3,659,447	1871...	6,627,179	1885...	7,415,469
1833.....	700,000	1858...	3,456,064	1872...	6,741,929	1886...	7,009,754
1836.....	1,000,000	1859...	3,712,904	1873...	6,566,451	1887...	7,559,518
1839.....	1,248,781	1860...	3,826,752	1874...	5,991,408		



## THE PRODUCTION OF STEEL IN THE UNITED STATES AND GREAT BRITAIN.

The production of Bessemer steel ingots (including Clapp-Griffiths steel ingots) and rails in Great Britain in the last eleven years, compared with the production of the United States in the same period, was as follows.

Years.	Great Britain—gross tons.		United States—gross tons.	
	Ingots.	Rails.	Ingots.	Rails.
1877.....	750,000	508,400	500,524	385,865
1878.....	807,527	622,390	653,773	491,427
1879.....	834,511	520,231	829,439	610,682
1880.....	1,044,382	732,910	1,074,262	852,196
1881.....	1,441,719	1,023,740	1,374,247	1,187,770
1882.....	1,673,649	1,235,785	1,514,687	1,284,067
1883.....	1,553,380	1,097,174	1,477,345	1,148,709
1884.....	1,299,676	784,968	1,375,531	996,983
1885.....	1,304,127	706,583	1,519,430	959,471
1886.....	1,570,520	730,343	2,269,190	1,574,703
1887.....	2,089,403	1,021,847	2,936,033	2,101,904

If we consider the various kinds of steel which are made by the two great steel-making countries above mentioned, the United States will be found to be ahead of its European rival. We summarize the production of ingots in both countries in 1887 in gross tons as follows.

	Ingots—gross tons.	Great Britain.	United States.
Bessemer steel (including Clapp-Griffiths steel).....	2,089,403		2,936,033
Open-hearth steel.....	981,104		322,069
Crucible steel.....	about 100,000		75,376
Other steel.....	nominal if any		5,593
Total.....	3,170,507		3,339,071

These figures show that the United States is now the first steel-producing country in the world, an honor, however, which we could not claim until 1886, although of Bessemer steel ingots alone we had in more than one preceding year made more than Great Britain. We passed our great rival in 1886 in the total production of steel, leaving her behind 197,832 gross tons. In 1887 the above table shows her to be behind 168,564 tons.

## OUR IMPORTATIONS OF TINPLATES FROM 1871 TO 1887.

All our tinplates are imported, virtually the whole of our supply coming from Great Britain. The following table shows the quantities imported in each calendar year from 1871 to 1887, with their foreign values.

Years.	Gross tons.	Values.	Years.	Gross tons.	Values.
1871.....	82,969	\$9,946,373	1880.....	158,049	\$16,478,110
1872.....	85,629	13,893,450	1881.....	183,005	14,886,907
1873.....	97,177	14,240,868	1882.....	213,987	17,975,161
1874.....	79,778	13,057,658	1883.....	221,233	18,156,773
1875.....	91,054	12,098,885	1884.....	216,181	16,858,650
1876.....	89,946	9,416,816	1885.....	228,596	15,991,152
1877.....	112,479	10,679,028	1886.....	257,822	17,504,976
1878.....	107,864	9,069,967	1887.....	283,836	18,699,145
1879.....	154,250	13,227,659			



UNITED STATES RAILROAD STATISTICS FROM 1830 TO 1887.

The following is Mr. H. V. Poor's table of the railroad mileage of the United States from 1830 to 1887, a period of fifty-eight years. The figures given in this table denote only the length of the railroad lines in the country, without regard to the number of tracks or miles of sidings constructed. The figures are for calendar years.

Years.	Miles in Operat'n.	Annual Increase.	Years.	Miles in Operat'n.	Annual Increase.	Years.	Miles in Operat'n.	Annual Increase.
1830.....	23	.....	1850.....	9,021	1,656	1870.....	52,914	6,070
1831.....	95	72	1851.....	10,982	1,961	1871.....	60,293	7,379
1832.....	229	134	1852.....	12,908	1,926	1872.....	66,171	5,878
1833.....	380	151	1853.....	15,360	2,452	1873.....	70,268	4,097
1834.....	633	253	1854.....	16,720	1,360	1874.....	72,385	2,117
1835.....	1,098	465	1855.....	18,374	1,654	1875.....	74,096	1,711
1836.....	1,273	175	1856.....	22,016	3,642	1876.....	76,808	2,712
1837.....	1,497	224	1857.....	24,503	2,487	1877.....	79,088	2,280
1838.....	1,913	416	1858.....	26,968	2,465	1878.....	81,717	2,629
1839.....	2,302	389	1859.....	28,789	1,821	1879.....	86,463	4,746
1840.....	2,818	516	1860.....	30,635	1,846	1880.....	93,349	6,886
1841.....	3,535	717	1861.....	31,286	651	1881.....	103,145	9,796
1842.....	4,026	491	1862.....	32,120	834	1882.....	114,713	11,568
1843.....	4,185	159	1863.....	33,170	1,050	1883.....	121,454	6,741
1844.....	4,377	192	1864.....	33,908	738	1884.....	125,379	3,925
1845.....	4,633	256	1865.....	35,085	1,177	1885.....	128,987	3,608
1846.....	4,930	297	1866.....	36,801	1,716	1886.....	137,986	8,999
1847.....	5,598	668	1867.....	39,250	2,449	1887.....	151,066	13,080
1848.....	5,996	398	1868.....	42,229	2,979			
1849.....	7,365	1,369	1869.....	46,844	4,615			

STATISTICS OF IMMIGRATION INTO THE UNITED STATES FROM 1861 TO 1887.

There being no law of Congress providing for the collection of statistics of immigration across our frontiers by railroad cars and other land vehicles, it is found impracticable to collect fully and accurately the statistics of immigrants arriving from the British North American Provinces and from Mexico. The arrivals of immigrants from these countries since July 1, 1885, are excluded from all official tables of immigration.

The following table, compiled from the reports of the Bureau of Statistics of the Treasury Department, shows the total number of immigrants who have arrived in the United States from 1861 to 1887, with the exception mentioned for the last half of 1885 and the whole of 1886 and 1887.

Calendar years.	Immigrants.	Calendar years.	Immigrants.	Calendar years.	Immigrants.
1861.....	89,722	1871.....	346,938	1881.....	720,045
1862.....	89,005	1872.....	437,750	1882.....	730,349
1863.....	174,524	1873.....	422,545	1883.....	570,316
1864.....	193,195	1874.....	260,814	1884.....	461,346
1865.....	247,453	1875.....	191,231	1885.....	350,510
1866.....	314,917	1876.....	157,440	1886.....	386,631
1867.....	310,965	1877.....	130,502	1887.....	509,281
1868.....	289,145	1878.....	153,207		
1869.....	385,287	1879.....	250,565	Total.....	9,123,689
1870.....	356,303	1880.....	593,703		

## FOREIGN COMMERCE OF THE UNITED STATES SINCE 1861.

*Official Figures from the Bureau of Statistics of the Treasury Department.*

The following table, compiled from the reports of the Bureau of Statistics, shows the imports and exports of the United States in each fiscal year, ended June 30th, from 1861 to 1887. The phrases "net imports" and "domestic exports" indicate that all merchandise and specie imported and re-exported are excluded from the table. The column headed "Balance of Trade" shows the difference between the net imports and domestic exports of merchandise without reference to the movement of specie. A + mark before the amount indicates that the balance of trade was in favor of the United States; when no mark occurs the balance of trade was against this country.

Fiscal Years.	Merchandise. Gold Value.		Balance of Trade.	Specie.		Specie Balance.
	Net imports.	Domestic exports.		Net imports.	Domestic exports.	
1861.....	\$274,656,325	\$204,899,616	\$69,756,709	\$40,408,401	\$23,799,870	+\$16,608,531
1862.....	178,330,200	179,644,024	+ 1,313,824	10,572,063	31,044,651	20,472,588
1863.....	225,375,280	186,003,912	39,371,368	1,421,056	55,993,562	54,572,506
1864.....	301,113,322	143,504,027	157,609,295	8,192,633	100,473,562	92,280,929
1865.....	209,656,525	136,940,248	72,716,277	6,784,970	64,618,124	57,833,154
1866.....	423,470,646	337,518,102	85,952,544	7,299,395	82,643,374	75,343,979
1867.....	381,041,764	279,786,809	101,254,955	16,178,299	54,976,196	38,797,897
1868.....	344,873,441	269,389,900	75,483,541	4,150,241	83,745,975	79,595,734
1869.....	406,555,379	275,166,697	131,388,682	5,585,462	42,915,966	37,330,504
1870.....	419,803,113	376,616,473	43,186,640	12,147,315	43,883,802	31,736,487
1871.....	505,802,414	428,398,908	77,403,506	7,231,395	84,403,359	77,171,964
1872.....	610,904,622	428,487,131	182,417,491	6,664,395	72,798,240	66,133,845
1873.....	624,689,727	505,033,439	119,656,288	10,777,909	73,905,546	63,127,637
1874.....	550,556,723	569,433,421	+ 18,876,698	21,524,187	59,699,686	38,175,499
1875.....	518,846,825	499,284,100	19,562,725	12,625,704	83,857,129	71,231,425
1876.....	445,938,766	525,582,247	+ 79,643,481	9,469,070	50,038,691	40,569,621
1877.....	438,518,130	589,670,224	+151,152,094	27,746,915	43,134,738	15,387,823
1878.....	422,895,034	680,709,268	+257,814,234	23,143,074	27,061,885	3,918,811
1879.....	433,679,124	698,340,790	+264,661,666	12,853,594	17,555,035	4,701,441
1880.....	656,262,441	823,946,353	+167,683,912	85,239,284	9,347,893	+75,891,391
1881.....	624,213,229	883,925,947	+259,712,718	105,395,594	14,226,944	+91,168,650
1882.....	707,337,049	733,239,732	+ 25,902,683	36,535,182	43,480,271	6,945,089
1883.....	703,565,144	804,223,632	+100,658,488	18,292,239	21,623,181	3,330,942
1884.....	652,148,936	724,964,852	+ 72,815,916	20,518,514	50,225,635	29,707,121
1885.....	562,020,520	726,682,946	+164,662,426	25,386,908	24,376,110	+ 1,010,798
1886.....	621,875,835	665,964,529	+ 44,088,694	18,054,363	51,924,117	33,869,754
1887.....	679,159,480	703,022,923	+ 23,863,443	46,883,441	22,710,340	+24,173,101

NOTE.—The Canadian reports of imports into the Dominion of Canada from the United States indicate that in addition to the above "domestic exports" there was exported to Canada in the fiscal year 1886 merchandise of the value of \$17,027,875, and in the fiscal year 1887 merchandise of the value of \$15,774,703.

FUEL IN BLAST FURNACES.—In 1854 the United States made more pig iron with charcoal than with anthracite coal, and the manufacture of pig iron with bituminous coal had but just commenced. The very next year charcoal was passed by anthracite, and in 1869 it was passed by bituminous coal. Anthracite continued, however, to be the leading fuel until 1875, when it too was passed by bituminous coal, which has since continued to be the favorite blast-furnace fuel, and is doubtless destined to so remain.



# AVERAGE PRICES PER GROSS TON OF CHARCOAL PIG IRON AT PHILADELPHIA FROM 1799 TO 1849.

*Compiled by The American Iron and Steel Association.*

The following table has been compiled from the Statistical Chart of Mr. William G. Neilson, and embraces the prices of charcoal pig iron from the beginning of the century to the time when anthracite pig iron became the standard for comparison. Until May, 1827, the following prices are for best pig iron; from May, 1827, to June, 1833, they are for an average of all grades; from June, 1833, to January, 1840, they are for gray iron; and from January, 1840, to the close of the table they are for No. 1 foundry. After 1849 the standard of quotations was No. 1 anthracite foundry pig iron, hereafter given.

Years.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Average.
1799...	\$ 36 $\frac{1}{4}$	\$ 36 $\frac{1}{4}$	\$ 36 $\frac{1}{4}$	\$ 36 $\frac{1}{4}$	\$ 36 $\frac{1}{4}$	\$ 36 $\frac{1}{4}$	\$ 36 $\frac{1}{4}$	\$ 36 $\frac{1}{4}$	\$ 36 $\frac{1}{4}$	\$ 36 $\frac{1}{4}$	\$ 36 $\frac{1}{4}$	\$ 36 $\frac{1}{4}$	\$ 36 $\frac{1}{4}$
1800...	\$ 36 $\frac{1}{4}$	\$ 36 $\frac{1}{4}$	\$ 36 $\frac{1}{4}$	\$ 36 $\frac{1}{4}$	\$ 36 $\frac{1}{4}$	\$ 36 $\frac{1}{4}$	\$ 36 $\frac{1}{4}$	\$ 36 $\frac{1}{4}$	\$ 36 $\frac{1}{4}$	\$ 36 $\frac{1}{4}$	\$ 36	\$ 34 $\frac{1}{2}$	\$ 35 $\frac{3}{4}$
1801...	\$ 33 $\frac{3}{4}$	\$ 33 $\frac{1}{2}$	\$ 33 $\frac{1}{2}$	\$ 33 $\frac{1}{2}$	\$ 33 $\frac{1}{2}$	\$ 33 $\frac{1}{2}$	\$ 31	\$ 32 $\frac{1}{2}$	\$ 32 $\frac{1}{2}$	\$ 32 $\frac{1}{2}$	\$ 32 $\frac{1}{2}$	\$ 32 $\frac{1}{2}$	\$ 32 $\frac{3}{4}$
1802...	\$ 32 $\frac{1}{2}$	\$ 32 $\frac{1}{2}$	\$ 32 $\frac{1}{2}$	\$ 32 $\frac{1}{2}$	\$ 32	\$ 31 $\frac{1}{2}$	\$ 30 $\frac{1}{2}$	\$ 29 $\frac{1}{2}$	\$ 29 $\frac{1}{2}$	\$ 29	\$ 29	\$ 28 $\frac{1}{2}$	\$ 30 $\frac{3}{4}$
1803...	\$ 28 $\frac{1}{4}$	\$ 28	\$ 28 $\frac{1}{4}$	\$ 28 $\frac{3}{4}$	\$ 29	\$ 29	\$ 29 $\frac{1}{4}$	\$ 29 $\frac{3}{4}$	\$ 30	\$ 30	\$ 30	\$ 30	\$ 29 $\frac{1}{4}$
1804...	\$ 30	\$ 30	\$ 30	\$ 30	\$ 30	\$ 30	\$ 30	\$ 30	\$ 30	\$ 29 $\frac{1}{2}$	\$ 29	\$ 29	\$ 29 $\frac{3}{4}$
1805...	\$ 29	\$ 29	\$ 29	\$ 29	\$ 29	\$ 29 $\frac{1}{2}$	\$ 31	\$ 32	\$ 32	\$ 32 $\frac{1}{2}$	\$ 33	\$ 33 $\frac{1}{2}$	\$ 30 $\frac{3}{4}$
1806...	\$ 35	\$ 35 $\frac{1}{2}$	\$ 35 $\frac{1}{2}$	\$ 35 $\frac{1}{2}$	\$ 35 $\frac{1}{2}$	\$ 35 $\frac{1}{2}$	\$ 35 $\frac{1}{2}$	\$ 35 $\frac{1}{2}$	\$ 35 $\frac{1}{2}$	\$ 36	\$ 36 $\frac{1}{2}$	\$ 37	\$ 35 $\frac{3}{4}$
1807...	\$ 37	\$ 37	\$ 37	\$ 37 $\frac{1}{2}$	\$ 38	\$ 40	\$ 40	\$ 40	\$ 40	\$ 40	\$ 40	\$ 40	\$ 38 $\frac{3}{4}$
1808...	\$ 40	\$ 40	\$ 40	\$ 40	\$ 40	\$ 40	\$ 40	\$ 40	\$ 40	\$ 40	\$ 40	\$ 40	\$ 40
1809...	\$ 40	\$ 40	\$ 40	\$ 40	\$ 40	\$ 40	\$ 40	\$ 40	\$ 40	\$ 40	\$ 40	\$ 40	\$ 40
1810...	\$ 38	\$ 38	\$ 38	\$ 38	\$ 38	\$ 38	\$ 38	\$ 38	\$ 38	\$ 38	\$ 38	\$ 39	\$ 38
1811...	\$ 38	\$ 38 $\frac{1}{2}$	\$ 41 $\frac{1}{2}$	\$ 43 $\frac{1}{2}$	\$ 45	\$ 45	\$ 45	\$ 45	\$ 45	\$ 46	\$ 47 $\frac{1}{2}$	\$ 47 $\frac{1}{2}$	\$ 44
1812...	\$ 47 $\frac{1}{2}$	\$ 47 $\frac{1}{2}$	\$ 47 $\frac{1}{2}$	\$ 47 $\frac{1}{2}$	\$ 47 $\frac{1}{2}$	\$ 47 $\frac{1}{2}$	\$ 47 $\frac{1}{2}$	\$ 47 $\frac{1}{2}$	\$ 47 $\frac{1}{2}$	\$ 47 $\frac{1}{2}$	\$ 47 $\frac{1}{2}$	\$ 47 $\frac{1}{2}$	\$ 47 $\frac{1}{2}$
1813...	\$ 47 $\frac{1}{2}$	\$ 47 $\frac{1}{2}$	\$ 47 $\frac{1}{2}$	\$ 47 $\frac{1}{2}$	\$ 47 $\frac{1}{2}$	\$ 47 $\frac{1}{2}$	\$ 47 $\frac{1}{2}$	\$ 47 $\frac{1}{2}$	\$ 47 $\frac{1}{2}$	\$ 47 $\frac{1}{2}$	\$ 47 $\frac{1}{2}$	\$ 46	\$ 47 $\frac{1}{4}$
1814...	\$ 45 $\frac{1}{2}$	\$ 45	\$ 45	\$ 45	\$ 45	\$ 45	\$ 45	\$ 45	\$ 45	\$ 46	\$ 48 $\frac{1}{2}$	\$ 52 $\frac{1}{2}$	\$ 46
1815...	\$ 55	\$ 55	\$ 55	\$ 55	\$ 55	\$ 55	\$ 54	\$ 52 $\frac{3}{4}$	\$ 52 $\frac{1}{2}$	\$ 52 $\frac{1}{2}$	\$ 52 $\frac{1}{2}$	\$ 52 $\frac{1}{2}$	\$ 53 $\frac{3}{4}$
1816...	\$ 52	\$ 50 $\frac{1}{2}$	\$ 50	\$ 50	\$ 50	\$ 50	\$ 50	\$ 50	\$ 50	\$ 50	\$ 50	\$ 50	\$ 50 $\frac{1}{4}$
1817...	\$ 50	\$ 50	\$ 50	\$ 50	\$ 50	\$ 49	\$ 47	\$ 45	\$ 44 $\frac{1}{2}$	\$ 43	\$ 42 $\frac{1}{2}$	\$ 42 $\frac{1}{2}$	\$ 47
1818...	\$ 42 $\frac{1}{2}$	\$ 42 $\frac{1}{2}$	\$ 42 $\frac{1}{2}$	\$ 42 $\frac{1}{2}$	\$ 42 $\frac{1}{2}$	\$ 42 $\frac{1}{2}$	\$ 42 $\frac{1}{2}$	\$ 42 $\frac{1}{2}$	\$ 42 $\frac{1}{2}$	\$ 42 $\frac{1}{2}$	\$ 42	\$ 41	\$ 42 $\frac{1}{4}$
1819...	\$ 39 $\frac{3}{4}$	\$ 38	\$ 38 $\frac{3}{4}$	\$ 37 $\frac{3}{4}$	\$ 35 $\frac{1}{2}$	\$ 35	\$ 35	\$ 35	\$ 35	\$ 35	\$ 35	\$ 35	\$ 36 $\frac{1}{2}$
1820...	\$ 35	\$ 35	\$ 35	\$ 35	\$ 35	\$ 35	\$ 35	\$ 35	\$ 35	\$ 35	\$ 35	\$ 35	\$ 35
1821...	\$ 35	\$ 35	\$ 35	\$ 35	\$ 35	\$ 35	\$ 35	\$ 35	\$ 35	\$ 35	\$ 35	\$ 35	\$ 35
1822...	\$ 35	\$ 35	\$ 35	\$ 35	\$ 35	\$ 35	\$ 35	\$ 35	\$ 35	\$ 35	\$ 35	\$ 35	\$ 35
1823...	\$ 35	\$ 35	\$ 35	\$ 35	\$ 35	\$ 35	\$ 35	\$ 35	\$ 35	\$ 35	\$ 35 $\frac{1}{2}$	\$ 36 $\frac{1}{2}$	\$ 35 $\frac{1}{4}$
1824...	\$ 37 $\frac{1}{4}$	\$ 37 $\frac{1}{2}$	\$ 37 $\frac{3}{4}$	\$ 39	\$ 40	\$ 40	\$ 40	\$ 40	\$ 40 $\frac{1}{2}$	\$ 41 $\frac{3}{4}$	\$ 42 $\frac{1}{2}$	\$ 42 $\frac{3}{4}$	\$ 40
1825...	\$ 43	\$ 42 $\frac{3}{4}$	\$ 43 $\frac{1}{2}$	\$ 44	\$ 47 $\frac{1}{2}$	\$ 50	\$ 50	\$ 50	\$ 50	\$ 49	\$ 47	\$ 45	\$ 46 $\frac{3}{4}$
1826...	\$ 45	\$ 45	\$ 45	\$ 45 $\frac{3}{4}$	\$ 46 $\frac{3}{4}$	\$ 47 $\frac{1}{2}$	\$ 47 $\frac{1}{2}$	\$ 47 $\frac{1}{2}$	\$ 47 $\frac{1}{2}$	\$ 47 $\frac{1}{2}$	\$ 47 $\frac{1}{2}$	\$ 47 $\frac{1}{2}$	\$ 46 $\frac{1}{2}$
1827...	\$ 47 $\frac{1}{2}$	\$ 47 $\frac{1}{2}$	\$ 47 $\frac{1}{2}$	\$ 46 $\frac{3}{4}$	\$ 36 $\frac{1}{2}$	\$ 35 $\frac{3}{4}$	\$ 35	\$ 35	\$ 35	\$ 35	\$ 35	\$ 35	\$ 39 $\frac{1}{4}$
1828...	\$ 35	\$ 35	\$ 35	\$ 35	\$ 35	\$ 35	\$ 35	\$ 35	\$ 35	\$ 35	\$ 35	\$ 35	\$ 35
1829...	\$ 35	\$ 35	\$ 35	\$ 35	\$ 35	\$ 35	\$ 35	\$ 35	\$ 35	\$ 35	\$ 35	\$ 35	\$ 35
1830...	\$ 35	\$ 35	\$ 35	\$ 35	\$ 35	\$ 35	\$ 35	\$ 35	\$ 35	\$ 35	\$ 35	\$ 35	\$ 35
1831...	\$ 35	\$ 35	\$ 35	\$ 35	\$ 35	\$ 35	\$ 35	\$ 35	\$ 35	\$ 35	\$ 35	\$ 35	\$ 35
1832...	\$ 35	\$ 35	\$ 35	\$ 35	\$ 35	\$ 35	\$ 35	\$ 35	\$ 35	\$ 35	\$ 35	\$ 35	\$ 35
1833...	\$ 35	\$ 35	\$ 35	\$ 35	\$ 35	\$ 40	\$ 40	\$ 40	\$ 40	\$ 40 $\frac{1}{2}$	\$ 41 $\frac{3}{4}$	\$ 40	\$ 38 $\frac{1}{4}$
1834...	\$ 35	\$ 31	\$ 30	\$ 30	\$ 30	\$ 30	\$ 30	\$ 30	\$ 30	\$ 30	\$ 29 $\frac{1}{2}$	\$ 28 $\frac{1}{2}$	\$ 30 $\frac{1}{4}$
1835...	\$ 29 $\frac{1}{4}$	\$ 29 $\frac{1}{2}$	\$ 29 $\frac{3}{4}$	\$ 30 $\frac{1}{4}$	\$ 30 $\frac{1}{4}$	\$ 30	\$ 30	\$ 30	\$ 30	\$ 30 $\frac{1}{2}$	\$ 30 $\frac{3}{4}$	\$ 31 $\frac{3}{4}$	\$ 30 $\frac{1}{4}$
1836...	\$ 32	\$ 32 $\frac{1}{2}$	\$ 35	\$ 39 $\frac{1}{2}$	\$ 41	\$ 41 $\frac{1}{4}$	\$ 41 $\frac{1}{4}$	\$ 42	\$ 45	\$ 47	\$ 49	\$ 50 $\frac{1}{4}$	\$ 41 $\frac{1}{2}$
1837...	\$ 51 $\frac{1}{2}$	\$ 52 $\frac{1}{2}$	\$ 52 $\frac{1}{4}$	\$ 51	\$ 49	\$ 47	\$ 42	\$ 39	\$ 35 $\frac{1}{2}$	\$ 34 $\frac{3}{4}$	\$ 35 $\frac{1}{2}$	\$ 36	\$ 41 $\frac{1}{4}$
1838...	\$ 35	\$ 35 $\frac{3}{4}$	\$ 35 $\frac{1}{4}$	\$ 34	\$ 31	\$ 31 $\frac{1}{4}$	\$ 32	\$ 32	\$ 31 $\frac{1}{2}$	\$ 31 $\frac{1}{2}$	\$ 31 $\frac{1}{2}$	\$ 31 $\frac{1}{2}$	\$ 32 $\frac{1}{4}$
1839...	\$ 31 $\frac{3}{4}$	\$ 32	\$ 33	\$ 34	\$ 34	\$ 34	\$ 33 $\frac{1}{2}$	\$ 33 $\frac{1}{2}$	\$ 33 $\frac{1}{4}$	\$ 32 $\frac{1}{4}$	\$ 32	\$ 32	\$ 30
1840...	\$ 32	\$ 32	\$ 31 $\frac{1}{2}$	\$ 30 $\frac{3}{4}$	\$ 30 $\frac{1}{2}$	\$ 30 $\frac{1}{2}$	\$ 30	\$ 29 $\frac{1}{2}$	\$ 29	\$ 29	\$ 29	\$ 29	\$ 32 $\frac{3}{4}$
1841...	\$ 29	\$ 29	\$ 29	\$ 29	\$ 29	\$ 28 $\frac{1}{2}$	\$ 28	\$ 28	\$ 28	\$ 28	\$ 28 $\frac{1}{4}$	\$ 28 $\frac{3}{4}$	\$ 28 $\frac{1}{2}$
1842...	\$ 29 $\frac{1}{2}$	\$ 29 $\frac{1}{2}$	\$ 29	\$ 28 $\frac{1}{2}$	\$ 28 $\frac{1}{2}$	\$ 28 $\frac{1}{2}$	\$ 28	\$ 27 $\frac{1}{2}$	\$ 27 $\frac{1}{2}$	\$ 27 $\frac{1}{2}$	\$ 27 $\frac{1}{2}$	\$ 27 $\frac{3}{4}$	\$ 28
1843...	\$ 28 $\frac{3}{4}$	\$ 29	\$ 29	\$ 28	\$ 28	\$ 26	\$ 25	\$ 25	\$ 25 $\frac{1}{2}$	\$ 25 $\frac{1}{2}$	\$ 25 $\frac{1}{2}$	\$ 26	\$ 26 $\frac{3}{4}$
1844...	\$ 27	\$ 27	\$ 26 $\frac{1}{2}$	\$ 26 $\frac{3}{4}$	\$ 28	\$ 29 $\frac{1}{2}$	\$ 29 $\frac{1}{2}$	\$ 29 $\frac{1}{2}$	\$ 29 $\frac{3}{4}$	\$ 30	\$ 30 $\frac{1}{4}$	\$ 30	\$ 28 $\frac{1}{4}$
1845...	\$ 30	\$ 29 $\frac{3}{4}$	\$ 32	\$ 35	\$ 36 $\frac{1}{2}$	\$ 35	\$ 33	\$ 32	\$ 30 $\frac{1}{2}$	\$ 30 $\frac{1}{2}$	\$ 31	\$ 32 $\frac{1}{2}$	\$ 32 $\frac{1}{4}$
1846...	\$ 33	\$ 33	\$ 32 $\frac{1}{2}$	\$ 32 $\frac{1}{2}$	\$ 32 $\frac{1}{2}$	\$ 31 $\frac{1}{2}$	\$ 31 $\frac{3}{4}$	\$ 30	\$ 29 $\frac{1}{2}$	\$ 30	\$ 29 $\frac{1}{2}$	\$ 30 $\frac{1}{2}$	\$ 31 $\frac{1}{4}$
1847...	\$ 30 $\frac{1}{2}$	\$ 30 $\frac{1}{2}$	\$ 30	\$ 30 $\frac{1}{2}$	\$ 30	\$ 29 $\frac{3}{4}$	\$ 29 $\frac{1}{2}$	\$ 30 $\frac{1}{2}$	\$ 33	\$ 33 $\frac{1}{4}$	\$ 35 $\frac{1}{2}$	\$ 34 $\frac{3}{4}$	\$ 31 $\frac{1}{2}$
1848...	\$ 34 $\frac{1}{2}$	\$ 32	\$ 30 $\frac{1}{2}$	\$ 29 $\frac{1}{2}$	\$ 29 $\frac{1}{2}$	\$ 29	\$ 28	\$ 27	\$ 26	\$ 26	\$ 25 $\frac{1}{2}$	\$ 25 $\frac{1}{2}$	\$ 28 $\frac{1}{2}$
1849...	\$ 25 $\frac{1}{2}$	\$ 25 $\frac{1}{2}$	\$ 25 $\frac{1}{2}$	\$ 25 $\frac{1}{2}$	\$ 25	\$ 24 $\frac{1}{2}$	\$ 23 $\frac{3}{4}$	\$ 23 $\frac{1}{2}$	\$ 23 $\frac{3}{4}$	\$ 24	\$ 24 $\frac{1}{4}$	\$ 24 $\frac{1}{4}$	\$ 24 $\frac{1}{2}$



AVERAGE PRICES PER GROSS TON OF No. 1 ANTHRACITE  
FOUNDRY PIG IRON AT PHILADELPHIA SINCE 1842.

*Compiled by The American Iron and Steel Association.*

Years.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Average.	Years.
	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	
1842..	.....	.....	.....	.....	27	27	26 $\frac{1}{3}$	24 $\frac{1}{2}$	25 $\frac{1}{8}$	25	25	25	.....	..1842
1844..	24	24	24	24	24	26 $\frac{1}{6}$	26 $\frac{1}{2}$	26 $\frac{1}{2}$	27 $\frac{1}{4}$	28	27 $\frac{1}{2}$	26 $\frac{3}{4}$	25 $\frac{3}{4}$	..1844
1845..	26 $\frac{3}{4}$	26 $\frac{1}{2}$	27 $\frac{3}{4}$	33 $\frac{1}{8}$	34 $\frac{1}{8}$	33	31	28 $\frac{1}{3}$	27	26 $\frac{7}{8}$	28 $\frac{1}{3}$	28	29 $\frac{1}{4}$	..1845
1846..	28	28	28 $\frac{1}{4}$	28	28 $\frac{1}{2}$	28	29	26 $\frac{1}{8}$	27 $\frac{1}{4}$	27	28 $\frac{1}{2}$	28 $\frac{1}{8}$	27 $\frac{7}{8}$	..1846
1847..	28 $\frac{1}{2}$	28 $\frac{1}{2}$	28 $\frac{5}{8}$	29	29	28 $\frac{5}{8}$	28	28 $\frac{1}{2}$	30 $\frac{1}{2}$	33 $\frac{3}{4}$	35 $\frac{3}{4}$	33 $\frac{3}{4}$	30 $\frac{1}{4}$	..1847
1848..	31	28 $\frac{1}{2}$	27 $\frac{1}{4}$	26 $\frac{5}{8}$	26 $\frac{1}{2}$	26 $\frac{1}{2}$	25 $\frac{3}{4}$	25 $\frac{3}{8}$	25 $\frac{1}{2}$	25	25	24 $\frac{7}{8}$	26 $\frac{1}{2}$	..1848
1849..	25	24 $\frac{1}{2}$	24 $\frac{3}{4}$	24	23 $\frac{1}{2}$	23	22 $\frac{3}{4}$	22 $\frac{1}{2}$	21 $\frac{1}{8}$	21 $\frac{1}{2}$	20	21	22 $\frac{3}{4}$	..1849
1850..	21	21	20 $\frac{2}{3}$	20 $\frac{7}{8}$	20 $\frac{7}{8}$	20 $\frac{1}{6}$	20	20 $\frac{2}{3}$	21	21	21	21 $\frac{3}{4}$	20 $\frac{7}{8}$	..1850
1851..	21 $\frac{1}{2}$	22	22	22	21 $\frac{1}{2}$	21 $\frac{1}{2}$	21	21	21	21	21	21	21 $\frac{3}{8}$	..1851
1852..	21 $\frac{1}{4}$	21 $\frac{1}{4}$	20 $\frac{3}{4}$	20 $\frac{3}{8}$	20 $\frac{1}{4}$	20 $\frac{1}{2}$	20 $\frac{1}{4}$	21 $\frac{1}{4}$	23 $\frac{1}{4}$	26 $\frac{1}{2}$	27 $\frac{3}{4}$	28 $\frac{1}{4}$	22 $\frac{5}{8}$	..1852
1853..	32 $\frac{3}{4}$	36 $\frac{7}{8}$	35 $\frac{5}{8}$	35 $\frac{7}{8}$	35 $\frac{7}{8}$	36	36	36	36 $\frac{1}{4}$	37 $\frac{1}{3}$	37 $\frac{5}{8}$	36 $\frac{3}{4}$	36 $\frac{1}{8}$	..1853
1854..	37	36 $\frac{1}{4}$	37	38	38	38	38	38	37 $\frac{3}{4}$	36 $\frac{1}{2}$	35 $\frac{1}{2}$	32 $\frac{7}{8}$	36 $\frac{7}{8}$	..1854
1855..	31 $\frac{1}{8}$	29 $\frac{1}{2}$	27 $\frac{1}{2}$	26 $\frac{3}{4}$	26 $\frac{1}{2}$	26 $\frac{1}{8}$	26 $\frac{1}{8}$	26 $\frac{1}{2}$	28	28 $\frac{5}{8}$	28 $\frac{1}{2}$	27 $\frac{3}{4}$	27 $\frac{3}{4}$	..1855
1856..	27 $\frac{1}{2}$	27 $\frac{1}{2}$	27 $\frac{2}{3}$	28	28	27 $\frac{5}{8}$	27	27	27	26 $\frac{7}{8}$	26	26	27 $\frac{1}{8}$	..1856
1857..	26 $\frac{1}{4}$	26 $\frac{1}{2}$	26 $\frac{5}{8}$	27 $\frac{3}{4}$	27 $\frac{7}{8}$	27 $\frac{3}{4}$	27 $\frac{1}{4}$	26 $\frac{3}{4}$	26 $\frac{3}{8}$	25 $\frac{3}{4}$	23 $\frac{1}{2}$	23 $\frac{3}{4}$	26 $\frac{3}{8}$	..1857
1858..	23 $\frac{1}{2}$	22 $\frac{1}{2}$	22 $\frac{1}{2}$	22 $\frac{1}{2}$	22 $\frac{1}{2}$	22 $\frac{1}{8}$	21 $\frac{3}{8}$	21 $\frac{1}{2}$	22	21 $\frac{1}{2}$	21 $\frac{3}{4}$	22 $\frac{1}{2}$	22 $\frac{1}{4}$	..1858
1859..	22 $\frac{3}{4}$	23 $\frac{3}{8}$	24 $\frac{1}{2}$	23 $\frac{3}{8}$	23 $\frac{1}{2}$	23 $\frac{3}{8}$	23	23 $\frac{1}{8}$	22 $\frac{7}{8}$	23 $\frac{3}{4}$	23 $\frac{1}{4}$	23 $\frac{1}{8}$	23 $\frac{3}{8}$	..1859
1860..	23	23	23 $\frac{3}{8}$	22 $\frac{3}{8}$	22 $\frac{3}{4}$	22 $\frac{3}{4}$	22 $\frac{3}{4}$	22 $\frac{1}{2}$	22 $\frac{1}{4}$	22 $\frac{3}{8}$	22 $\frac{3}{4}$	22 $\frac{1}{2}$	22 $\frac{3}{4}$	..1860
1861..	22 $\frac{1}{8}$	21 $\frac{3}{4}$	21 $\frac{1}{4}$	21 $\frac{7}{8}$	21 $\frac{1}{8}$	20 $\frac{1}{2}$	19 $\frac{7}{8}$	18 $\frac{3}{4}$	18 $\frac{3}{4}$	18 $\frac{5}{8}$	18 $\frac{7}{8}$	19 $\frac{5}{8}$	20 $\frac{1}{4}$	..1861
1862..	20	20 $\frac{3}{4}$	20 $\frac{3}{4}$	21 $\frac{1}{2}$	21 $\frac{1}{2}$	22 $\frac{3}{4}$	24	24 $\frac{3}{8}$	24 $\frac{1}{2}$	25 $\frac{1}{4}$	30 $\frac{1}{2}$	31 $\frac{1}{8}$	23 $\frac{7}{8}$	..1862
1863..	32	33 $\frac{1}{4}$	35 $\frac{1}{2}$	36	34 $\frac{3}{4}$	33 $\frac{1}{2}$	32 $\frac{3}{4}$	31 $\frac{3}{4}$	33	35 $\frac{3}{4}$	41 $\frac{1}{8}$	43 $\frac{1}{2}$	35 $\frac{1}{4}$	..1863
1864..	43 $\frac{1}{6}$	48 $\frac{3}{8}$	50 $\frac{1}{8}$	54 $\frac{1}{2}$	57 $\frac{1}{4}$	57 $\frac{5}{8}$	69 $\frac{1}{8}$	*73 $\frac{5}{8}$	72 $\frac{1}{4}$	63 $\frac{3}{4}$	61 $\frac{1}{2}$	59 $\frac{1}{8}$	†59 $\frac{1}{4}$	..1864
1865..	58 $\frac{1}{8}$	53 $\frac{3}{8}$	50 $\frac{3}{8}$	45 $\frac{1}{2}$	39 $\frac{1}{8}$	35	35 $\frac{2}{3}$	40 $\frac{1}{8}$	44 $\frac{1}{3}$	49 $\frac{7}{8}$	51	50 $\frac{3}{4}$	46 $\frac{1}{8}$	..1865
1866..	50 $\frac{3}{8}$	49	46 $\frac{1}{8}$	41 $\frac{3}{4}$	41 $\frac{3}{8}$	43 $\frac{7}{8}$	46 $\frac{1}{2}$	47 $\frac{1}{4}$	48 $\frac{1}{8}$	48 $\frac{3}{4}$	49 $\frac{1}{2}$	49 $\frac{1}{2}$	46 $\frac{7}{8}$	..1866
1867..	48 $\frac{3}{4}$	46 $\frac{1}{2}$	44 $\frac{3}{4}$	41	42 $\frac{3}{4}$	43	43 $\frac{1}{3}$	44	44 $\frac{1}{2}$	44 $\frac{1}{2}$	43 $\frac{3}{4}$	42 $\frac{1}{8}$	44 $\frac{1}{8}$	..1867
1868..	38 $\frac{2}{3}$	36 $\frac{3}{4}$	37 $\frac{7}{8}$	38 $\frac{1}{3}$	37	37	38 $\frac{1}{6}$	39 $\frac{1}{2}$	40 $\frac{1}{6}$	41 $\frac{3}{8}$	42 $\frac{7}{8}$	43 $\frac{1}{4}$	39 $\frac{1}{4}$	..1868
1869..	42	40 $\frac{1}{4}$	41 $\frac{1}{2}$	40	39 $\frac{1}{2}$	40 $\frac{7}{8}$	41 $\frac{5}{8}$	41 $\frac{1}{8}$	40 $\frac{3}{4}$	40 $\frac{1}{2}$	39 $\frac{3}{4}$	39 $\frac{1}{2}$	40 $\frac{5}{8}$	..1869
1870..	36 $\frac{1}{4}$	34 $\frac{1}{2}$	34 $\frac{1}{2}$	33 $\frac{1}{4}$	33 $\frac{1}{4}$	32 $\frac{1}{2}$	32 $\frac{3}{4}$	33 $\frac{1}{2}$	33 $\frac{1}{4}$	32 $\frac{1}{4}$	31 $\frac{1}{2}$	31 $\frac{1}{4}$	33 $\frac{1}{4}$	..1870
1871..	30 $\frac{1}{2}$	30 $\frac{7}{8}$	34 $\frac{1}{4}$	35 $\frac{3}{8}$	35 $\frac{1}{2}$	35	35 $\frac{3}{4}$	36	36 $\frac{1}{2}$	36 $\frac{2}{3}$	37 $\frac{1}{4}$	37 $\frac{1}{4}$	35 $\frac{1}{8}$	..1871
1872..	37	40 $\frac{3}{4}$	47	49 $\frac{1}{2}$	49 $\frac{1}{2}$	53 $\frac{3}{8}$	51 $\frac{1}{3}$	52 $\frac{3}{4}$	53 $\frac{7}{8}$	53 $\frac{1}{3}$	51 $\frac{1}{4}$	47 $\frac{5}{8}$	48 $\frac{7}{8}$	..1872
1873..	45 $\frac{1}{6}$	48	48 $\frac{3}{8}$	47 $\frac{3}{4}$	46	45	43 $\frac{3}{4}$	43 $\frac{1}{2}$	42 $\frac{1}{2}$	38	33	32 $\frac{1}{2}$	42 $\frac{3}{4}$	..1873
1874..	32	32	32	32	31 $\frac{1}{2}$	31 $\frac{1}{2}$	31 $\frac{1}{2}$	31	29 $\frac{1}{2}$	29	26 $\frac{1}{4}$	24	30 $\frac{1}{4}$	..1874
1875..	25 $\frac{2}{3}$	26 $\frac{1}{2}$	27	27	26	26	26	26	25	24	23 $\frac{3}{4}$	23 $\frac{1}{2}$	25 $\frac{1}{2}$	..1875
1876..	23 $\frac{1}{4}$	23	23	22 $\frac{3}{4}$	22	22	22	22	21 $\frac{3}{4}$	21 $\frac{3}{4}$	21 $\frac{1}{2}$	21 $\frac{1}{4}$	22 $\frac{1}{4}$	..1876
1877..	20 $\frac{3}{4}$	20	20	19 $\frac{1}{2}$	19	18 $\frac{3}{4}$	18 $\frac{1}{4}$	18	18 $\frac{1}{4}$	18 $\frac{1}{2}$	18	18	18 $\frac{7}{8}$	..1877
1878..	18 $\frac{1}{2}$	18 $\frac{1}{2}$	18 $\frac{1}{2}$	18 $\frac{1}{2}$	18	17 $\frac{1}{4}$	17 $\frac{1}{4}$	17 $\frac{1}{2}$	17 $\frac{1}{2}$	17	†16 $\frac{1}{2}$	17	‡17 $\frac{5}{8}$	..1878
1879..	17 $\frac{1}{4}$	17 $\frac{1}{2}$	17 $\frac{7}{8}$	18	18 $\frac{1}{2}$	18 $\frac{3}{4}$	19 $\frac{1}{4}$	20 $\frac{3}{4}$	24 $\frac{1}{4}$	30	28	30 $\frac{1}{2}$	21 $\frac{1}{2}$	..1879
1880..	40	41	37 $\frac{1}{2}$	31	25	23	23 $\frac{1}{2}$	25	23 $\frac{1}{4}$	23	24 $\frac{1}{2}$	25	28 $\frac{1}{2}$	..1880
1881..	25	25 $\frac{1}{2}$	26	25	25	24	24 $\frac{1}{2}$	24 $\frac{1}{2}$	25 $\frac{1}{4}$	25 $\frac{1}{2}$	25 $\frac{3}{4}$	26	25 $\frac{1}{8}$	..1881
1882..	26	26	25 $\frac{3}{4}$	25 $\frac{1}{2}$	25 $\frac{1}{2}$	25 $\frac{1}{2}$	25 $\frac{1}{2}$	25 $\frac{1}{2}$	26	26 $\frac{1}{4}$	26	25 $\frac{3}{4}$	25 $\frac{3}{4}$	..1882
1883..	25	24 $\frac{1}{2}$	24	23 $\frac{1}{2}$	22	21	21 $\frac{1}{2}$	22	22	21 $\frac{1}{2}$	21	21	22 $\frac{3}{8}$	..1883
1884..	20 $\frac{1}{2}$	20 $\frac{1}{2}$	20 $\frac{1}{2}$	20	20	20	20	19 $\frac{1}{2}$	19 $\frac{1}{2}$	19 $\frac{1}{2}$	19 $\frac{1}{4}$	18 $\frac{1}{2}$	19 $\frac{7}{8}$	..1884
1885..	18	18	18	18	17 $\frac{7}{8}$	17 $\frac{3}{4}$	17 $\frac{3}{4}$	17 $\frac{3}{4}$	18	18 $\frac{1}{4}$	18 $\frac{1}{4}$	18 $\frac{1}{4}$	18	..1885
1886..	18 $\frac{1}{2}$	18 $\frac{1}{2}$	18 $\frac{3}{4}$	18 $\frac{1}{2}$	18 $\frac{1}{2}$	18 $\frac{1}{4}$	18 $\frac{1}{4}$	18 $\frac{1}{4}$	18 $\frac{1}{2}$	19	19 $\frac{1}{2}$	20	18 $\frac{3}{4}$	..1886
1887..	21 $\frac{1}{2}$	21 $\frac{1}{2}$	21	20 $\frac{3}{4}$	20 $\frac{7}{8}$	21	21	21	21	20 $\frac{1}{2}$	20 $\frac{1}{2}$	20 $\frac{1}{2}$	21	..1887

\* Highest average for month, \$73 $\frac{5}{8}$ —August, 1864. † Lowest average for month, \$16 $\frac{1}{2}$ —November, 1878. ‡ Highest average for year, \$59 $\frac{1}{4}$ —1864. § Lowest, \$17 $\frac{5}{8}$ —1878.



AVERAGE WHOLESALE STORE PRICES OF BEST REFINED  
ROLLED BAR IRON AT PHILADELPHIA SINCE 1844.

*Compiled by The American Iron and Steel Association. Per ton of 2,240 lbs.*

Years.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Average.
	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
1844...	90 00	90 00	90 00	90 00	90 00	82 50	82 50	82 50	82 50	82 50	82 50	82 50	85 62
1845...	82 50	87 50	92 50	100 00	100 00	100 00	95 00	92 50	92 50	92 50	95 00	95 00	93 75
1846...	95 00	95 00	90 00	92 50	92 50	92 50	95 00	92 50	90 00	90 00	90 00	85 00	91 66
1847...	85 00	85 00	85 00	85 00	85 00	90 00	90 00	85 00	87 50	85 00	85 00	85 00	86 04
1848...	85 00	85 00	85 00	85 00	85 00	80 00	80 00	80 00	75 00	75 00	67 50	70 00	79 33
1849...	70 00	70 00	70 00	70 00	70 00	70 00	65 00	65 00	65 00	65 00	65 00	65 00	67 50
1850...	65 00	65 00	65 00	62 50	60 00	57 50	57 50	57 50	57 50	56 00	56 00	55 00	59 54
1851...	55 00	55 00	55 00	55 00	55 00	55 00	55 00	55 00	54 00	54 00	54 00	54 00	54 66
1852...	54 00	54 00	52 50	52 50	52 50	52 50	52 50	55 00	60 00	70 00	70 00	80 00	58 79
1853...	90 00	90 00	90 00	87 50	85 00	80 00	80 00	77 50	77 50	80 00	80 00	85 00	83 50
1854...	90 00	90 00	90 00	90 00	90 00	92 50	95 00	95 00	95 00	92 50	90 00	90 00	91 33
1855...	82 50	80 00	75 00	72 50	70 00	70 00	70 00	72 50	72 50	75 00	77 50	77 50	74 58
1856...	75 00	77 50	77 50	77 50	75 00	72 50	70 00	70 00	72 50	72 50	72 50	72 50	73 75
1857...	72 50	72 50	72 50	72 50	72 50	72 50	70 00	70 00	70 00	70 00	70 00	67 50	71 04
1858...	65 00	65 00	65 00	62 50	62 50	65 00	62 50	60 00	60 00	60 00	60 00	60 00	62 29
1859...	60 00	60 00	60 00	60 00	60 00	60 00	60 00	60 00	60 00	60 00	60 00	60 00	60 00
1860...	60 00	57 50	57 50	57 50	57 50	57 50	57 50	60 00	60 00	60 00	60 00	60 00	58 75
1861...	60 00	60 00	60 00	60 00	60 00	60 00	60 00	60 00	62 50	62 50	62 50	62 50	60 83
1862...	62 50	62 50	62 50	62 50	65 00	65 00	70 00	72 50	75 00	77 50	82 50	87 50	70 42
1863...	87 50	90 00	90 00	90 00	90 00	87 50	87 50	87 50	87 50	90 00	95 00	110 00	91 04
1864...	115 00	125 00	130 00	140 00	150 00	160 00	165 00	170 00	160 00	150 00	147 50	145 00	146 46
1865...	142 50	135 00	130 00	110 00	100 00	92 50	90 00	85 00	92 50	95 00	100 00	105 00	106 38
1866...	105 00	100 00	97 50	95 00	92 50	95 00	105 00	100 00	100 00	97 50	95 00	95 00	98 13
1867...	95 00	92 50	92 50	90 00	87 50	87 50	85 00	82 50	82 50	82 50	82 50	85 00	87 08
1868...	85 00	85 00	85 00	87 50	87 50	87 50	85 00	85 00	85 00	85 00	85 00	85 00	85 63
1869...	82 50	82 50	82 50	82 50	82 50	82 50	82 50	82 50	80 00	80 00	80 00	80 00	81 66
1870...	80 00	77 50	77 50	77 50	75 00	77 50	80 00	85 00	82 50	80 00	77 50	77 50	78 96
1871...	72 50	75 00	75 00	77 50	75 00	77 50	77 50	80 00	82 50	82 50	82 50	85 00	78 54
1872...	73 92	78 40	87 36	94 08	96 32	98 56	103 04	105 28	107 52	118 72	107 52	100 80	97 63
1873...	96 32	94 08	96 32	94 08	94 08	91 84	85 12	82 88	80 64	76 16	73 92	71 68	86 43
1874...	73 92	73 92	71 68	71 68	67 20	67 20	62 72	67 20	67 20	67 20	62 72	62 72	67 95
1875...	62 72	60 48	62 72	62 72	62 72	62 72	62 72	60 48	60 48	60 48	56 00	56 00	60 85
1876...	56 00	52 64	52 64	52 64	52 64	52 64	52 64	52 64	50 40	50 40	50 40	49 28	52 08
1877...	48 72	47 60	47 04	44 80	44 80	44 80	44 80	44 80	44 80	44 80	44 80	44 80	45 55
1878...	44 80	44 80	44 80	44 80	44 80	44 80	44 80	44 80	44 80	42 56	42 56	42 56	44 24
1879...	40 32	42 56	44 80	44 80	44 80	44 80	47 04	49 28	57 12	67 20	67 20	72 24	51 85
1880...	80 64	85 12	82 32	71 68	56 00	51 07	50 02	53 76	54 88	52 64	52 64	53 76	60 38
1881...	56 00	56 00	56 00	56 00	53 76	53 76	54 88	57 12	60 48	62 72	64 96	64 96	58 05
1882...	64 96	67 20	67 20	62 72	58 24	60 48	60 48	60 48	60 48	60 48	58 24	56 00	61 41
1883...	53 76	52 64	51 52	50 40	50 40	50 40	50 40	49 28	49 28	49 28	49 28	47 04	50 30
1884...	44 80	44 80	44 80	44 80	44 80	44 80	44 80	44 80	42 56	42 56	42 56	42 56	44 05
1885...	40 32	40 32	40 32	40 32	40 30	40 32	40 32	40 32	40 32	40 32	40 32	40 32	40 32
1886...	41 44	42 56	42 56	42 56	42 56	42 56	42 56	42 56	43 68	44 80	44 80	44 80	43 12
1887...	48 16	50 40	51 52	51 52	51 52	49 28	49 28	49 28	49 28	48 16	47 04	47 04	49 37

The highest price in any month in the above table was reached in August, 1864, \$170 ; the lowest price in any month was in January, 1879, and throughout 1885, \$40.32.



# AVERAGE PRICES OF STANDARD SECTIONS OF IRON RAILS AT MILLS IN PENNSYLVANIA FROM 1847 TO 1882.

Compiled by The American Iron and Steel Association. Per ton of 2,240 lbs.

Years.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Average.	Average price of gold.
	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	
1847...	.....	71 $\frac{2}{3}$	70 $\frac{1}{8}$	70	70	70	69 $\frac{1}{2}$	69 $\frac{1}{2}$	67 $\frac{1}{8}$	67	67 $\frac{1}{2}$	67 $\frac{1}{2}$	.....	100
1848...	63	63	63	63	63	63	63	61 $\frac{7}{8}$	61 $\frac{1}{3}$	61	61	61	62 $\frac{1}{4}$	100
1849...	61	57 $\frac{1}{2}$	53 $\frac{3}{4}$	53 $\frac{1}{3}$	54 $\frac{1}{4}$	53 $\frac{1}{2}$	53 $\frac{1}{2}$	53 $\frac{1}{4}$	52	51 $\frac{1}{2}$	51 $\frac{1}{2}$	51 $\frac{1}{2}$	53 $\frac{7}{8}$	100
1850...	47	47 $\frac{1}{2}$	48	49	49	50	46	46 $\frac{3}{4}$	47 $\frac{1}{2}$	48	48	48	47 $\frac{7}{8}$	100
1851...	43	45	47 $\frac{1}{2}$	45	45	48	46	45 $\frac{1}{2}$	45	45	46	46 $\frac{1}{4}$	45 $\frac{5}{8}$	100
1852...	46 $\frac{1}{2}$	46 $\frac{1}{2}$	46 $\frac{1}{2}$	46 $\frac{1}{2}$	46 $\frac{1}{2}$	46 $\frac{1}{2}$	46 $\frac{1}{2}$	46 $\frac{1}{2}$	47 $\frac{3}{4}$	49 $\frac{1}{3}$	51	61	48 $\frac{3}{8}$	100
1853...	74 $\frac{1}{6}$	77 $\frac{1}{2}$	77 $\frac{1}{2}$	77 $\frac{1}{2}$	77 $\frac{1}{2}$	77 $\frac{1}{2}$	77 $\frac{1}{2}$	77 $\frac{1}{2}$	77 $\frac{1}{2}$	77 $\frac{1}{2}$	77 $\frac{1}{2}$	77 $\frac{1}{2}$	77 $\frac{1}{4}$	100
1854...	81	81	81	81	81	81	81	81	81	81	77 $\frac{1}{2}$	73 $\frac{1}{2}$	80 $\frac{1}{8}$	100
1855...	70	65	62 $\frac{1}{2}$	62 $\frac{1}{2}$	60	58 $\frac{1}{3}$	59 $\frac{1}{2}$	59 $\frac{1}{2}$	64 $\frac{1}{2}$	65	65	63	62 $\frac{7}{8}$	100
1856...	62 $\frac{1}{2}$	62 $\frac{1}{8}$	63 $\frac{3}{8}$	65	65	65	65	65	65	65	65	64	64 $\frac{3}{8}$	100
1857...	65 $\frac{1}{2}$	65 $\frac{1}{2}$	64 $\frac{1}{2}$	65 $\frac{3}{4}$	67	67	67	67	67	67	58 $\frac{1}{2}$	50	64 $\frac{1}{4}$	100
1858...	50	50	50	50	50	50	50	50	50	50	50	50	50	100
1859...	49 $\frac{3}{4}$	49 $\frac{1}{4}$	49 $\frac{1}{4}$	50 $\frac{1}{6}$	50 $\frac{1}{4}$	50 $\frac{1}{4}$	49 $\frac{3}{4}$	48 $\frac{3}{4}$	48 $\frac{3}{4}$	48 $\frac{3}{4}$	48 $\frac{3}{4}$	48 $\frac{3}{4}$	49 $\frac{3}{8}$	100
1860...	48 $\frac{3}{4}$	48 $\frac{3}{4}$	48 $\frac{3}{4}$	48 $\frac{3}{4}$	48 $\frac{3}{4}$	48 $\frac{3}{4}$	48 $\frac{3}{4}$	46	47	47 $\frac{1}{2}$	47 $\frac{1}{2}$	46 $\frac{1}{8}$	48	100
1861...	44	44	44	44	44	44	44	43 $\frac{1}{6}$	43	41 $\frac{3}{8}$	36 $\frac{1}{2}$	36 $\frac{1}{2}$	42 $\frac{3}{8}$	100
1862...	36 $\frac{1}{2}$	36 $\frac{1}{2}$	41 $\frac{1}{2}$	41 $\frac{1}{2}$	41 $\frac{1}{2}$	41 $\frac{1}{2}$	41 $\frac{1}{2}$	41 $\frac{1}{2}$	43	43 $\frac{3}{4}$	46	46	41 $\frac{3}{4}$	113
1863...	72 $\frac{1}{2}$	69 $\frac{3}{4}$	72 $\frac{1}{4}$	73 $\frac{1}{2}$	73 $\frac{1}{2}$	78 $\frac{3}{4}$	81 $\frac{1}{2}$	73 $\frac{3}{8}$	72 $\frac{1}{2}$	79 $\frac{1}{2}$	87 $\frac{1}{2}$	87 $\frac{1}{2}$	76 $\frac{7}{8}$	145
1864...	94	101 $\frac{1}{4}$	105	111	120	127 $\frac{1}{2}$	141 $\frac{1}{2}$	152 $\frac{1}{2}$	153 $\frac{3}{4}$	140	133 $\frac{3}{4}$	132	126	202
1865...	125 $\frac{5}{8}$	121 $\frac{1}{4}$	116 $\frac{1}{4}$	108 $\frac{1}{2}$	90 $\frac{1}{4}$	84 $\frac{1}{4}$	82 $\frac{1}{2}$	86 $\frac{1}{4}$	90	92 $\frac{1}{2}$	95	91	98 $\frac{5}{8}$	157
1866...	90	90	87 $\frac{3}{4}$	84 $\frac{3}{4}$	84	85 $\frac{3}{4}$	86 $\frac{3}{8}$	87	87 $\frac{5}{8}$	87 $\frac{7}{8}$	85	85	86 $\frac{3}{4}$	140
1867...	85	85	84 $\frac{1}{4}$	82 $\frac{7}{8}$	82 $\frac{1}{2}$	82 $\frac{1}{2}$	82 $\frac{1}{2}$	82 $\frac{1}{2}$	82 $\frac{1}{2}$	82 $\frac{1}{2}$	82 $\frac{1}{2}$	82 $\frac{1}{2}$	83 $\frac{1}{8}$	138
1868...	81 $\frac{2}{3}$	79	79	79	79	79	79	79	79	78 $\frac{1}{4}$	76	78 $\frac{3}{4}$	78 $\frac{7}{8}$	140
1869...	76 $\frac{3}{4}$	76	76	76	76	76	76	80	78 $\frac{1}{2}$	78 $\frac{1}{2}$	78 $\frac{1}{2}$	78 $\frac{1}{2}$	77 $\frac{1}{4}$	136
1870...	74	72 $\frac{1}{2}$	72 $\frac{1}{2}$	72 $\frac{1}{2}$	72 $\frac{1}{8}$	72 $\frac{1}{2}$	72 $\frac{1}{2}$	72 $\frac{1}{2}$	72 $\frac{1}{2}$	72 $\frac{1}{2}$	70 $\frac{1}{2}$	70	72 $\frac{1}{4}$	115
1871...	68 $\frac{3}{4}$	69	69	69 $\frac{1}{2}$	71	71	71	71	71	71	71	71	70 $\frac{3}{8}$	112
1872...	71 $\frac{1}{3}$	75 $\frac{5}{8}$	81 $\frac{1}{8}$	83 $\frac{7}{8}$	90 $\frac{1}{2}$	90	89	87 $\frac{3}{4}$	88 $\frac{3}{4}$	88 $\frac{3}{4}$	88 $\frac{3}{4}$	85 $\frac{1}{2}$	85 $\frac{1}{8}$	112
1873...	83 $\frac{1}{3}$	83	83	82	80	78	76	75	75	70	68	66	76 $\frac{2}{3}$	113
1874...	66	64	62	60	60	60	60	58	58	55	52	50	58 $\frac{3}{4}$	112
1875...	50	50	50	49	49	49	48 $\frac{1}{2}$	47	46 $\frac{1}{2}$	46	45 $\frac{1}{2}$	43 $\frac{3}{4}$	47 $\frac{3}{4}$	114
1876...	43 $\frac{1}{2}$	43	42 $\frac{1}{2}$	42	42	41	41	41	40	40	39 $\frac{1}{2}$	39	41 $\frac{1}{4}$	110
1877...	38	38	38	37 $\frac{1}{2}$	37	34 $\frac{1}{2}$	34 $\frac{1}{2}$	34	33	32 $\frac{1}{2}$	33	33	35 $\frac{1}{4}$	105
1878...	33 $\frac{1}{2}$	33 $\frac{1}{2}$	33 $\frac{1}{2}$	33 $\frac{1}{2}$	33 $\frac{1}{2}$	33 $\frac{1}{2}$	34	34	34	34	34	34	33 $\frac{3}{4}$	102
1879...	34	34 $\frac{1}{2}$	35	35 $\frac{1}{2}$	37 $\frac{1}{2}$	38 $\frac{1}{2}$	40	41	44	48	53	54	41 $\frac{1}{4}$	100
1880...	65	68	66	60	50	46 $\frac{1}{4}$	45	46	46	46	46 $\frac{1}{2}$	45 $\frac{1}{4}$	49 $\frac{1}{4}$	100
1881...	46 $\frac{1}{2}$	47 $\frac{1}{2}$	47	47	46 $\frac{1}{2}$	46 $\frac{1}{2}$	46 $\frac{3}{4}$	47	47 $\frac{3}{4}$	47 $\frac{1}{2}$	47 $\frac{3}{4}$	48	47 $\frac{1}{8}$	100
1882...	48 $\frac{1}{2}$	48 $\frac{1}{2}$	47 $\frac{1}{2}$	47	44 $\frac{3}{4}$	44 $\frac{3}{4}$	45	45	44	4	44	44	45 $\frac{1}{2}$	100

Standard Weights in Various Countries.	Avoirdupois pounds.
Gross ton (Great Britain and the United States).....	2,240.
Net ton (United States).....	2,000.
Metric ton = 1000 kilogrammes (Continent of Europe).....	2,204.
Kilogramme or kilo (Continent of Europe).....	2.2
Pood (Russia).....	36.11
Centner (Sweden).....	93.7

AVERAGE MONTHLY PRICES IN DOLLARS OF STEEL RAILS  
AT WORKS IN PENNSYLVANIA SINCE 1868.

*Compiled by The American Iron and Steel Association. Averaged monthly  
from weekly quotations. Per ton of 2,240 lbs.*

Years.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Average.
1868...	165	167½	174	172	165	162½	150	150	150	150	148	147½	158½
1869...	145	143¼	135	134	130¼	128	130	130	130	130½	130¼	120	132¼
1870...	110	110	108½	107	106	109¼	110	110	108¾	101½	102½	98	106¾
1871...	95	96	106	95	103	104	103¾	104	106	105¾	105¼	106½	102½
1872...	104½	104	104¼	111½	110	113	114½	115¼	114	113½	118	120¾	112
1873...	121	120	122½	120¼	120	121¾	121¾	121¾	118	120	120	120	120½
1874...	117½	117½	115	98⅔	98⅓	96¼	91	89¼	78¼	78¼	75⅔	75⅔	94¼
1875...	71	71	71	69	69	69	69	69	69	67	66	65	68¾
1876...	67	65	62	62	62	60	59	59	56	54	53	52	59¼
1877...	49	49	49	49	47¼	46½	45¼	44¾	44	42¼	40½	40½	45½
1878...	41	41½	41½	42	43½	43	43½	42½	42½	42½	42	41	42¼
1879...	41	42	43	42½	42	43	44	48	50	55	61	67	48¼
1880...	75	85	82	75	65	63¾	62½	63¾	61¼	60	59	58	67½
1881...	60	62	62½	63	63	60	61	60	60	60	61½	60	61⅘
1882...	58	55	54	52¾	48¾	48¼	48	47	45	44¼	42	39	48½
1883...	40	39½	39	38½	38	38	38	38	37½	37	35	34½	37¾
1884...	34	34	34	34	33	32	30	28	27	28	28	27	30¾
1885...	27	27	26½	26	27	27¼	27¼	27¼	29	30½	33	34½	28½
1886...	34½	34½	34½	34½	34½	34½	34½	34¼	34	34	34½	36	34½
1887...	38½	39½	39½	39¼	39	39	38½	37	36	34¼	32½	32	37⅛

PRODUCTION OF COAL IN GREAT BRITAIN FROM 1854 TO 1887.

The production of coal in Great Britain in 1887, according to the reports of Her Majesty's Inspectors of Mines, was 162,119,812 gross tons, against 157,518,482 tons in 1886, 159,351,418 tons in 1885, and 160,757,779 tons in 1884. A steady decline in production from 1883 to 1886 will be noticed, but in 1887 the production increased, and nearly equaled the output of 1883, in which year the maximum quantity of coal was mined in Great Britain. The following table shows the annual production of coal in Great Britain since 1854. This table has been carefully revised for us by Mr. Richard Meade, of the Home Department of Her Majesty's Government.

Years.	Gross tons.	Years.	Gross tons.	Years.	Gross tons.	Years.	Gross tons.
1854.....	64,661,401	1863...	86,292,215	1872...	123,497,316	1881...	154,184,300
1855.....	64,453,079	1864...	92,787,873	1873...	128,680,131	1882...	156,499,977
1856.....	66,645,450	1865...	98,150,587	1874...	126,590,108	1883...	163,737,327
1857.....	65,394,707	1866...	101,630,544	1875...	133,306,485	1884...	160,757,779
1858.....	65,008,649	1867...	104,500,480	1876...	134,125,166	1885...	159,351,418
1859.....	71,979,765	1868...	103,141,157	1877...	134,179,968	1886...	157,518,482
1860.....	80,042,698	1869...	107,427,557	1878...	132,612,063	1887...	162,119,812
1861.....	84,013,941	1870...	110,431,192	1879...	133,720,393		
1862.....	81,638,338	1871...	117,352,028	1880...	146,969,409		



AVERAGE WHOLESALE STORE PRICES OF CUT NAILS PER  
KEG OF 100 POUNDS AT PHILADELPHIA SINCE 1860.

*Compiled from original data for The American Iron and Steel Association by  
William E. S. Baker, Secretary of The Duncannon Iron Company.*

Years.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Average.
	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
1860...	3 25	3 25	3 25	3 25	3 25	3 25	3 25	3 25	3 00	3 00	2 75	2 75	3 13
1861...	2 75	2 75	2 75	2 75	2 75	2 75	2 75	2 75	2 75	2 75	2 75	2 75	2 75
1862...	3 00	3 00	3 00	3 15	3 25	3 25	3 50	3 50	3 50	3 50	4 00	5 00	3 47
1863...	5 00	5 25	5 25	5 25	5 25	5 25	5 00	5 00	5 00	5 00	5 00	5 25	5 13
1864...	5 30	5 50	6 90	7 00	7 00	7 00	8 50	10 00	10 00	9 50	9 00	8 50	7 85
1865...	8 50	8 50	8 00	7 50	6 00	5 50	5 25	5 25	7 00	8 00	7 75	7 75	7 08
1866...	7 75	7 75	7 50	7 25	6 75	6 60	6 50	6 50	6 75	6 75	6 75	6 75	6 97
1867...	6 75	6 75	6 50	6 00	5 75	5 75	5 75	5 75	5 50	5 50	5 50	5 50	5 92
1868...	5 25	5 25	5 25	5 25	5 00	5 00	5 00	5 00	5 00	5 25	5 25	5 50	5 17
1869...	5 50	5 25	5 00	4 75	4 50	4 50	4 50	4 50	5 00	5 00	5 00	4 75	4 87
1870...	4 75	4 50	4 25	4 25	4 25	4 50	4 50	4 50	4 50	4 25	4 25	4 25	4 40
1871...	4 25	4 50	4 50	4 50	4 75	4 75	4 50	4 25	4 25	4 50	4 75	4 75	4 52
1872...	4 75	5 00	5 00	5 50	5 50	5 50	5 50	5 50	5 75	6 00	6 00	5 50	5 46
1873...	5 00	5 25	5 25	5 25	5 25	5 00	4 75	4 75	4 75	4 75	4 50	4 25	4 90
1874...	4 15	4 00	4 00	4 10	4 10	4 10	4 10	4 10	4 00	3 75	3 75	3 75	3 99
1875...	3 65	3 65	3 65	3 50	3 50	3 50	3 50	3 25	3 25	3 25	3 25	3 10	3 42
1876...	3 00	3 00	2 75	2 75	2 75	3 00	3 00	3 25	3 25	3 00	3 00	3 00	2 98
1877...	2 90	2 80	2 80	2 75	2 60	2 50	2 50	2 40	2 40	2 40	2 40	2 40	2 57
1878...	2 40	2 50	2 50	2 50	2 40	2 30	2 25	2 20	2 20	2 20	2 15	2 15	2 31
1879...	2 15	2 15	2 10	2 25	2 25	2 25	2 25	2 40	3 00	3 50	3 70	4 25	2 69
1880...	4 90	5 25	5 25	4 75	3 40	2 90	2 80	3 00	3 15	3 00	2 90	2 90	3 68
1881...	2 90	2 90	3 00	3 15	3 05	3 00	3 00	3 05	3 15	3 30	3 30	3 30	3 09
1882...	3 40	3 40	3 40	3 30	3 25	3 35	3 40	3 50	3 65	3 65	3 65	3 65	3 47
1883...	3 40	3 35	3 20	3 10	3 10	3 10	3 00	3 00	3 00	2 90	2 85	2 75	3 06
1884...	2 60	2 60	2 60	2 60	2 60	2 50	2 40	2 30	2 20	2 10	2 10	2 10	2 39
1885...	2 10	2 25	2 30	2 30	2 30	2 30	2 20	2 20	2 25	2 40	2 60	2 75	2 33
1886...	2 65	2 45	2 40	2 40	2 25	2 10	2 10	2 20	2 20	2 20	2 10	2 15	2 27
1887...	2 30	2 50	2 55	2 50	2 40	2 25	2 25	2 20	2 20	2 15	2 15	2 10	2 30

The above figures are the jobbers' store prices in car-load lots. The maximum price was reached in August and September, 1864, \$10 per keg. The minimum price, \$2.10 per keg, was touched in March, 1879, at the close of 1884 and beginning of 1885, during June, July, and November of 1886, and in December, 1887. In 1879 and 1884 several makers closed out their stocks at 20 cents to 25 cents below our lowest figure of \$2.10.

IRON AND STEEL SHIPBUILDING.—The following table gives the number and tonnage (in gross tons) of all iron and steel vessels, except those for the U. S. Navy, built in the United States in the fiscal years since 1868. Nearly all were steam vessels.

Years.	No.	Tons.	Years.	No.	Tons.	Years.	No.	Tons.	Years.	No.	Tons.
1868.....	.....	2,801	1873.....	26	26,548	1878.....	32	26,960	1883.....	35	39,646
1869.....	.....	4,584	1874.....	23	33,097	1879.....	24	22,008	1884.....	34	35,632
1870.....	.....	8,281	1875.....	20	21,632	1880.....	31	25,582	1885.....	48	44,028
1871.....	.....	15,479	1876.....	25	21,346	1881.....	42	28,356	1886.....	26	14,907
1872.....	20	12,766	1877.....	7	5,927	1882.....	43	40,097	1887.....	29	34,353

## PRICES IN DOLLARS OF ANTHRACITE COAL SINCE 1826.

*Prices of Schuylkill White Ash Lump Coal, by the cargo, at Philadelphia.  
Averaged monthly from mean of weekly quotations. Per ton of 2,240 lbs.*

Years.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Average.
1826..				7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.50	7.80	.....
1827..	7.00	7.00	7.00	7.00	.....	.....	.....	.....	.....	.....	.....	.....	.....
1829..										7.50	7.50	7.25	.....
1830..	7.25	7.25	6.00	5.75	5.75	5.75	5.75	5.75	5.75	5.75	.....	.....	.....
1833..			6.00	5.50	5.25	5.25	5.25	5.25	5.17½	4.87½	4.87½	4.87½	.....
1834..	4.87	4.87	4.87	4.87	4.87	4.87	4.87	4.87	4.87	4.87	4.87	4.50	4.84
1835..	4.56	4.56	4.56	4.56	4.60	4.63	4.63	4.68	4.88	4.90	5.03	6.47	4.84
1836..	7.70	7.44	7.31	6.58	5.38	5.50	5.50	6.19	6.41	6.50	7.13	8.05	6.64
1837..	8.25	8.25	8.04	6.78	6.50	6.38	6.10	6.00	6.00	6.09	6.13	6.13	6.72
1838..	6.13	5.91	5.28	5.25	5.16	5.13	5.13	5.13	5.10	5.00	5.00	5.00	5.27
1839..	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
1840..	5.00	5.00	5.00	5.00	5.00	4.63	4.63	4.63	4.66	4.95	5.06	5.34	4.91
1841..	6.40	7.00	6.44	5.88	5.69	5.17	5.13	5.27	5.56	5.63	5.63	5.63	5.79
1842..	5.63	5.56	5.06	4.38	4.03	3.88	3.83	3.60	3.56	3.51	3.56	3.56	4.18
1843..	3.50	3.25	3.25	3.25	3.25	3.25	3.25	3.25	3.25	3.25	3.25	3.25	3.27
1844..	3.50	3.33	3.10	3.02	3.00	3.03	3.13	3.21	3.26	3.26	3.27	3.26	3.20
1845..	3.26	3.26	3.27	3.31	3.31	3.31	3.44	3.44	3.59	3.74	3.76	3.81	3.46
1846..	3.81	3.75	3.72	3.84	3.87	3.97	4.00	3.94	3.96	3.88	4.00	4.00	3.90
1847..	3.88	3.81	3.81	3.81	3.60	3.63	3.69	3.83	3.95	3.88	3.88	3.88	3.80
1848..	3.90	3.90	3.58	3.44	3.37	3.29	3.33	3.56	3.46	3.41	3.39	3.36	3.50
1849..	3.36	3.36	3.45	3.62	3.62	3.86	3.88	3.81	3.75	3.69	3.57	3.50	3.62
1850..	3.50	3.50	3.40	3.31	3.25	3.25	3.25	3.25	4.25	4.25	4.25	4.25	3.64
1851..	4.28	4.13	3.56	3.31	3.10	3.00	3.00	3.05	3.17	3.20	3.25	3.00	3.34
1852..	3.18	3.47	3.40	3.44	3.44	3.45	3.45	3.50	3.56	3.56	3.56	3.50	3.46
1853..	3.42	3.44	3.45	3.47	3.47	3.47	3.47	3.64	4.03	4.19	4.19	4.10	3.70
1854..	4.50	4.50	4.25	4.39	4.81	5.16	5.55	6.00	6.00	5.81	5.68	5.60	5.19
1855..	5.60	5.28	4.53	4.50	4.50	4.45	4.28	4.19	4.19	4.19	4.15	4.06	4.49
1856..	4.06	4.25	4.25	4.25	4.05	4.00	4.00	4.00	4.12	4.13	4.10	4.08	4.11
1857..	3.92	3.92	3.92	3.89	3.85	3.85	3.88	3.87	3.85	3.82	3.82	3.82	3.87
1858..	3.83	3.83	3.77	3.47	3.22	3.23	3.35	3.25	3.32	3.32	3.32	3.30	3.43
1859..	3.28	3.38	3.34	3.20	3.20	3.20	3.20	3.20	3.19	3.20	3.34	3.29	3.25
1860..	3.28	3.29	3.30	3.30	3.23	3.31	3.36	3.39	3.50	3.53	3.62	3.63	3.40
1861..	3.63	3.63	3.50	3.24	3.23	3.29	3.37	3.40	3.35	3.33	3.33	3.33	3.39
1862..	3.33	3.33	3.11	2.78	2.78	3.64	4.58	4.85	4.98	5.22	5.50	5.63	4.14
1863..	5.38	5.25	4.63	4.75	5.50	5.80	6.25	6.50	6.75	7.25	7.50	7.13	6.06
1864..	7.10	6.75	6.59	7.20	7.88	8.34	9.78	10.75	10.13	8.90	8.88	8.38	8.39
1865..	8.38	8.38	8.63	8.10	6.75	6.25	6.03	6.50	8.32	9.93	8.81	8.25	7.86
1866..	7.94	7.75	5.40	5.25	5.13	5.53	5.88	5.68	5.47	5.34	5.25	5.05	5.80
1867..	5.06	5.06	4.47	4.50	4.44	4.38	4.28	4.07	4.09	4.01	4.00	4.00	4.37
1868..	4.00	3.13	3.13	3.22	3.25	3.25	3.25	3.25	4.10	4.50	5.22	6.00	3.86
1869..	5.15	5.01	4.15	3.81	3.90	5.00	6.59	7.17	6.15	6.00	5.87	5.12	5.31
1870..	5.07	4.79	4.79	4.50	4.50	4.44	4.31	4.44	4.33	4.19	3.69	3.55	4.39
1871..	4.05	.....	.....	.....	.....	4.52	4.45	4.25	4.35	4.68	4.72	4.63	4.46
1872..	4.63	3.78	3.50	3.50	3.50	3.50	3.50	3.59	3.71	3.90	3.90	3.90	3.74
1873..	3.90	3.90	4.00	4.00	4.10	4.20	4.40	4.40	4.50	4.60	4.60	4.60	4.27
1874..	.....	.....	4.05	4.10	4.20	4.30	4.45	4.60	4.75	4.90	5.05	5.05	4.55
1875..	.....	.....	4.10	4.10	4.10	4.40	4.50	4.50	4.55	4.55	4.55	4.55	4.39
1876..	4.55	4.15	4.25	4.25	4.30	4.15	4.20	4.35	3.20	3.00	3.00	3.00	3.87
1877..	3.00	3.00	2.75	2.75	2.75	2.40	2.47	2.40	2.35	2.35	2.35	2.40	2.59
1878..	3.25	3.50	3.25	3.25	3.25	3.30	3.30	3.30	3.30	3.30	3.05	2.50	3.22
1879..	2.50	2.50	2.25	2.25	2.50	2.50	2.50	2.75	2.75	3.00	3.25	3.65	2.70
1880..	3.90	4.25	4.35	4.65	4.65	4.65	4.65	4.65	4.65	4.65	4.65	4.65	4.53
1881..	4.65	4.65	4.58	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.53
1882..	4.50	4.50	4.50	4.50	4.50	4.50	4.65	4.75	4.75	4.75	4.75	4.75	4.61
1883..	4.75	4.75	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.54
1884..	4.50	4.50	4.40	4.40	4.40	4.40	4.40	4.40	4.40	4.40	4.40	4.40	4.42
1885..	4.40	4.40	4.40	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.10
1886..	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
1887..	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.15	4.15	4.15	4.15	4.05

PRICES OF LEHIGH COAL IN PHILADELPHIA. (From Grotjan's *Public Sale Report*.) 1822, May to December, \$8.40. 1823, January to August, \$10; September, \$9.50; October to December, \$8.40. 1824, January to April, \$8.40.



## THE ANTHRACITE COAL SHIPMENTS OF PENNSYLVANIA.

*Prepared from original and authentic statistics by John H. Jones, Philadelphia.*

Years.	Wyoming Region.		Lehigh Region.		Schuylkill Region.		Total.
	Gross tons.	Per cent.	Gross tons.	Per cent.	Gross tons.	Per cent.	Gross tons.
1830.....	43,000	24.60	41,750	23.90	89,984	51.50	174,734
1831.....	54,000	30.54	40,966	23.17	81,854	46.29	176,820
1832.....	84,000	23.12	70,000	19.27	209,271	57.61	363,271
1833.....	111,777	22.91	123,001	25.22	252,971	51.87	487,749
1834.....	43,700	11.60	106,244	28.21	226,692	60.19	376,636
1835.....	90,000	16.05	131,250	23.41	339,508	60.54	560,758
1836.....	103,861	15.18	148,211	21.66	432,045	63.16	684,117
1837.....	115,387	13.27	223,902	25.75	530,152	60.98	869,441
1838.....	78,207	10.59	213,615	28.92	446,875	60.49	738,697
1839.....	122,300	14.94	221,025	27.01	475,077	58.05	818,402
1840.....	148,470	17.18	225,313	26.07	490,596	56.75	864,379
1841.....	192,270	20.03	143,037	14.90	624,466	65.07	959,773
1842.....	252,599	22.79	272,540	24.59	583,273	52.62	1,108,412
1843.....	285,605	22.60	267,793	21.19	710,200	56.21	1,263,598
1844.....	365,911	22.43	377,002	23.12	887,937	54.45	1,630,850
1845.....	451,836	22.45	429,453	21.33	1,131,724	56.22	2,013,013
1846.....	518,389	22.11	517,116	22.07	1,308,500	55.82	2,344,005
1847.....	583,067	20.23	633,507	21.98	1,665,735	57.79	2,882,309
1848.....	685,196	22.18	670,321	21.70	1,733,721	56.12	3,089,238
1849.....	732,910	22.60	781,556	24.10	1,728,500	53.30	3,242,966
1850.....	827,823	24.64	690,456	20.56	1,840,620	54.80	3,358,899
1851.....	1,156,167	25.98	964,224	21.68	2,328,525	52.34	4,448,916
1852.....	1,284,500	25.72	1,072,136	21.47	2,636,835	52.81	4,993,471
1853.....	1,475,732	28.41	1,054,309	20.29	2,665,110	51.30	5,195,151
1854.....	1,603,478	26.73	1,207,186	20.13	3,191,670	53.14	6,002,334
1855.....	1,771,511	26.80	1,284,113	19.43	3,552,943	53.77	6,608,567
1856.....	1,972,581	28.47	1,351,970	19.52	3,603,029	52.01	6,927,580
1857.....	1,952,603	29.39	1,318,541	19.84	3,373,797	50.77	6,644,941
1858.....	2,186,094	31.96	1,380,030	20.18	3,273,245	47.86	6,839,369
1859.....	2,731,236	34.98	1,628,311	20.86	3,448,708	44.16	7,808,255
1860.....	2,941,817	34.56	1,821,674	21.40	3,749,632	44.04	8,513,123
1861.....	3,055,140	38.41	1,738,377	21.85	3,160,747	39.74	7,954,264
1862.....	3,145,770	39.97	1,351,054	17.17	3,372,583	42.86	7,869,407
1863.....	3,759,610	39.30	1,894,713	19.80	3,911,683	40.90	9,566,006
1864.....	3,960,836	38.92	2,054,669	20.19	4,161,970	40.89	10,177,475
1865.....	3,254,519	33.72	2,040,913	21.14	4,356,959	45.14	9,652,391
1866.....	4,736,616	37.29	2,179,364	17.15	5,787,902	45.56	12,703,882
1867.....	5,325,000	40.99	2,502,054	19.27	5,161,671	39.74	12,988,725
1868.....	5,968,146	43.25	2,502,582	18.13	5,330,737	38.62	13,801,465
1869.....	6,141,369	44.28	1,949,673	14.06	5,775,138	41.66	13,866,180
1870.....	7,974,660	49.28	3,239,374	20.02	4,968,157	30.70	16,182,191
1871.....	6,911,242	44.02	2,235,707	14.24	6,552,772	41.74	15,699,721
1872.....	9,101,549	46.27	3,873,339	19.70	6,694,890	34.03	19,669,778
1873.....	10,309,755	48.57	3,705,596	17.46	7,212,601	33.97	21,227,952
1874.....	9,504,408	47.18	3,773,836	18.73	6,866,877	34.09	20,145,121
1875.....	10,596,155	53.75	2,834,605	14.38	6,281,712	31.87	19,712,472
1876.....	8,424,158	45.53	3,854,919	20.84	6,221,934	33.63	18,501,011
1877.....	8,300,377	39.85	4,332,760	20.80	8,195,042	39.35	20,828,179
1878.....	8,085,587	45.92	3,237,449	18.40	6,282,226	35.68	17,605,262
1879.....	12,586,293	48.14	4,595,567	17.58	8,960,829	34.28	26,142,689
1880.....	11,419,279	48.72	4,463,221	19.05	7,554,742	32.23	23,437,242
1881.....	13,951,383	48.96	5,294,676	18.58	9,253,958	32.46	28,500,017
1882.....	13,971,371	47.98	5,689,437	19.54	9,459,288	32.48	29,120,096
1883.....	15,604,492	49.08	6,113,809	19.23	10,074,726	31.69	31,793,027
1884.....	15,677,753	51.04	5,562,226	18.11	9,478,314	30.85	30,718,293
1885.....	16,236,470	51.35	5,898,634	18.65	9,488,426	30.00	31,623,530
1886.....	17,031,826	53.00	5,723,129	17.81	9,381,407	29.19	32,136,362
1887.....	19,684,929	56.82	4,347,061	12.55	10,609,028	30.63	34,641,018

The shipments of anthracite coal from the mines of Pennsylvania commenced in 1820, in which year 365 gross tons, or one ton for every day in the year, were shipped from the Lehigh region. During the ten years beginning with 1820 only 359,190 gross tons of coal were shipped, of which 7,000 tons came from the Wyoming region, 166,131 tons from the Lehigh region, and 186,059 tons from the Schuylkill region. A strike of the miners in the Lehigh region caused the reduced shipments from that region in 1887.

PRICES OF BRITISH IRON AND STEEL FROM 1830 TO 1887.

*Highest price in Shillings of British Iron and Steel Products from 1830 to 1887, showing Violent and Frequent Fluctuations.*

Compiled from Fossick's History of the British Iron Trade.

Years.	Staffordshire Marked Bars.	Welsh Bars.	Scotch Pig Iron.	Years.	Staffordshire Marked Bars.	Welsh Bars.	Scotch Pig Iron.	Iron Rails.	Steel Rails.
	s.	s.	s.		s.	s.	s.	s.	s.
1830.....	145	120	100	1859.....	150	125	60	.....	.....
1831.....	125	105	90	1860.....	150	115	65	.....	.....
1832.....	120	105	90	1861.....	150	110	55	.....	.....
1833.....	150	140	85	1862.....	140	110	60	.....	.....
1834.....	158	140	85	1863*.....	170	120	65	.....	.....
1835.....	158	135	95	1864.....	190	160	70	150	350
1836.....	225	220	135	1865.....	170	140	55	145	345
1837.....	215	195	80	1866.....	170	140	78	140	310
1838.....	185	175	80	1867.....	150	125	55	120	285
1839.....	195	190	95	1868.....	140	120	55	135	265
1840.....	185	175	78	1869.....	160	125	55	135	245
1841.....	175	150	62	1870.....	160	135	55	150	220
1842.....	145	120	50	1871.....	180	135	65	160	235
1843.....	130	100	58	1872.....	320	290	130	215	350
1844.....	140	110	65	1873.....	320	285	145	240	350
1845.....	240	210	110	1874.....	280	230	110	220	315
1846.....	200	180	75	1875.....	220	160	80	145	215
1847.....	186	180	75	1876.....	200	140	70	130	175
1848.....	160	150	50	1877.....	180	125	60	115	145
1849.....	160	120	55	1878.....	170	105	55	105	135
1850.....	120	105	50	1879.....	150	120	65	130	170
1851.....	120	95	45	1880.....	180	155	75	185	200
1852.....	120	150	55	1881.....	150	105	55	115	135
1853.....	220	190	100	1882.....	150	125	55	} nominal	130
1854.....	220	170	95	1883.....	150	115	50		105
1855.....	180	170	90	1884.....	150	105	45		98
1856.....	180	170	80	1885.....	150	100	45		95
1857.....	180	170	80	1886.....	150	93	45		95
1858.....	160	130	65	1887.....	120	90	48		89

Below we give some figures of lowest and highest prices, which we take from the same authority from which the above table has been compiled.

Lowest price Staffordshire bars, 1843, 100s.	Highest price Staffordshire bars, 1872, 320s.
Lowest price Welsh bars, 1843, 77s. 6d.	Highest price Welsh bars, 1872, 290s.
Lowest price Scotch pig iron, 1843, 32s.	Highest price Scotch pig iron, 1873, 145s.
Lowest price steel rails, 1886 and 1887, 72s.	Highest price steel rails, 1864 and 1873, 350s.

\* Mr. H. V. Poor, in an argument presented to the Ways and Means Committee of the House of Representatives, at Washington, on the 3d of February, 1880, gave the price of steel rails in British ports in 1863 as 369 shillings, or \$89.79.